

ACCOBAMS PARTNERS REPORTS

Pursuant to the "Rules and commitments of ACCOBAMS Partners", reflected in Annex 2 of Resolution 7.9, adopted by MOP7: *"Before each Meeting of the Parties, ACCOBAMS Partners shall report on the implementation of their activities and on the use of the ACCOBAMS Partner logo. To this end, their reports shall reach the Permanent Secretariat and the relevant National Focal Point at the latest two months before the Bureau meeting held to prepare the Meeting of the Parties."*

In this context, the Secretariat invited ACCOBAMS Partners to complete the ACCOBAMS Partner Report template with a view to presenting their reports at the Fifth Meeting of ACCOBAMS Extended Bureau held in April 2002.

This document presents the activities undertaken by ACCOBAMS Partners within the framework of the 2020-2022 ACCOBAMS Work Programme, in relation to capacity building, public awareness and research activities.

It is worth mentioning that from a total of 52 ACCOBAMS Partners, 23 Partner reports were received and are reflected hereafter.

ARCHIPELAGOS INSTITUTE OF MARINE CONSERVATION

Name of the Representative: Anastasia Miliou, Scientific Director



Capacity building activities:

For over two decades Archipelagos Institute of Marine Conservation has been dedicated to defending the biodiversity of the Greek seas through hands-on research and conservation. With teams in the field year round and with the use of 3 boats, we carry out significant scientific research in the field and in the laboratory, in close cooperation with local communities, authorities, international NGO coalitions and national and international institutions.

Capacity building (local communities): Archipelagos maintains close collaboration with the local communities, which is based in a long relation of trust. This is a strategic foundation that enables and strengthens our conservation efforts. One of the most important stakeholder groups that Archipelagos has been collaborating with for the 22 past years, is small-scale artisanal fishers. Among other things, through interviews with artisanal fishers, in Archipelagos we record critical LEK information about the marine environment of their region (e.g., habitat maps, species distribution, illegal industrial fisheries, IUU fisheries, historical data) and work together to address key marine conservation issues that affect the specific region.

Capacity building (international students): Scientists, researchers, recent graduates and students join Archipelagos Institute in the Aegean Sea islands throughout the year, in various educational and training activities. These give students the opportunity to develop their skills and knowledge through fieldwork. This strengthens our relationships with universities and institutes, allowing us to further develop our research activities with new expertise. These educational activities have a multidisciplinary approach combining marine mammal research, marine ecology and conservation, fisheries, GIS & remote sensing, media, PR & Graphic Design, law & policy, as well as environmental education.

Public awareness activities:

The results of Archipelagos research and conservation work and the media material collected during the year round research and conservation work at sea is used as a basis for multiple public awareness activities in local, national and international levels, with the focus on the following target groups:

- **Local communities** of the Greek islands and coastal regions. We carry out on-site awareness raising activities year round, mainly out of the tourist season, typically in the locations where the research boats are active for the various projects. Target specific stakeholder groups (fishermen, schools, teachers, local authorities, professionals of the tourism sector) have specific themes according to the key marine conservation priorities of the various regions
Equivalent awareness raising activities are also carried out via online platforms in many other areas where the research boats do not survey
- **General public** is reached through our frequent features in mainstream Greek media (i.e., tv, radio, social media), where Archipelagos has the platform to inform people and communities from far reaching corners of the world about issues related to marine conservation. Documentaries and articles in international media (TV, newspapers and online media) are also released and reach the international public.

Other important public awareness activities involve citizen science - targeting both the local communities and the visitors. For example, the Archipelagos' Eco-Navigation project records valuable data on marine life, through engaging with sailors and sea enthusiasts, fishermen, divers and other members of the local communities and visitors of the island. They share their observations and photographic materials, advancing our efforts for the conservation of the wildlife in our study area and contributing to our goal of building both an international online community and a significant database.

Research activities:

Between 2020 – 2022, one of the main goals of the research of Archipelagos Institute has been to improve the understanding of cetacean populations in the North East and South East Aegean Sea, via focused year round surveys. With the use of one to three research vessels (variable depending on the time of the year) Archipelagos is monitoring resident populations of cetaceans (*D. delphis*, *T. truncatus*, *S. coeruleoalba*, *Z. cavirostris*) as well as migratory populations (*P. macrocephalus*, *G. griseus*). This is carried out through photo identification, behavioral studies and acoustic monitoring of these populations.

Our photo ID efforts have mainly focused on developing catalogues of *Delphinus delphis*, *Tursiops truncatus*, *Stenella coeruleoalba*, and *Grampus griseus*, while behavioural studies targeted the impact of fisheries, marine traffic and plastic debris on marine mammals.

In 2020, COVID-19 restrictions reduced the frequency of surveys by 53% compared to 2019, but despite the challenges we managed to continue the monitoring activities as much as it was possible. During that year, research was also focused on underwater noise measurements, as boat traffic drastically reduced. A project on the soundscape around Lipsi island was first started in 2020 and extended around Samos Island in 2021. Simultaneously, bioacoustics research was emphasized on the impact of marine traffic on cetacean vocalizations.

Since 2020 Archipelagos has conducted 274 surveys in this study area, with a total of 340 sightings of marine mammal and sea turtle species.

Other:

The results of Archipelagos' research on marine mammal populations, are coupled by other research activities that we carry out in the same region including fisheries, IUU fisheries studies and fishstock assessment, mapping of the distribution and biodiversity of *Posidonia oceanica* seagrass and deep-water coralligenous reefs, studies on microplastic pollution in various levels of the food chain.

A related key activity of Archipelagos Institute is the creation of the Aegean Marine Life Sanctuary on the island of Lipsi, for the long-term hosting of *T. truncatus* to be translocated from captive facilities, which currently is in the last phases of development.

BIOLOGICAL CONSERVATION RESEARCH FOUNDATION (BICREF NGO)

Name of the Representative: Dr. Joseph Vella, PhD (*Sheffield*)

**Capacity building activities:**

BICREF has been assisting scientific research projects on cetacean in Maltese waters and in Italian waters to develop the skills in cetacean conservation research and monitoring in the Central Mediterranean. This NGO has also been receiving internship requests for scientific research exposure by university students from abroad.

Public awareness activities:

Writing news features on its website, talk about cetaceans on the prime-time TV news linked to conservation needs and ongoing research efforts. Involve promotion of marine biodiversity and cetacean conservation in schools and assist in activities run in collaboration with the BICREF NGO.

Example:

- <http://bicref.org/news/conservation-of-whales-and-maltese-seas-biodiversity/>

Research activities:

Continued in assisting in long-term research on cetaceans in Maltese waters. The BICREF NGO has been involved with the European Cetacean Society conferences for many years including the organization of the ECS conference in Malta, for the first and only time till now, in 2015.

BICREF, in collaboration with the CBRG-UM, has undertaken dolphin-fisheries associated research and the testing of the use of pingers in Maltese waters to reduce the fishermen – bottlenose dolphin conflicts.

After organizing an international workshop on Mediterranean Common Dolphins some years back in collaboration with other scientists and NGOs, a special issue and review dedicated to this species were published in *Aquatic Conservation: Marine and Freshwater Ecosystems*. This was also possible through the involvement of this NGO and its representative.

BLUE WORLD INSTITUTE OF MARINE RESEARCH AND CONSERVATION

Name of the Representative: Draško Holcer



Capacity building activities:

BWI hosted 23 students from 12 countries teaching them about the Mediterranean cetacean species and their ecology, threats and conservation status. Further, students were taught about boat-based survey techniques including fieldwork, data collection and analysis, use of geographical information systems (GIS), statistics and photo identification. As a result of this program, 1 PhD, 4 MSc and 1 BSc theses were written and defended, while 1 MSc thesis is foreseen to be finished in 2022.

BWI organized training of Croatian observers on methodologies for cetacean identification, by-catch monitoring and data collection at sea for the Med Bycatch Project.

BWI participated in Implementation of the Ecosystem Approach in the Adriatic Sea and development of RAC/SPA Integrated monitoring program for Montenegro and Albania by developing monitoring plan for cetaceans.

Within the EU funded LifeDELFI project two BWI staff participated in cetacean rescue training course held by Uni Padova in Italy, initiated creation of rescue teams for cetacean strandings, established a network among partners for strandings and by-catch monitoring and developed workshops for responsible conduct for dolphin-watching operators. Within the same project, BWI has conducted online photo-ID courses and is planning to conduct in-field photo-ID training courses for project partners (MPAs) in Italy during 2022.

Within the MedInterreg MBPC project BWI staff held online lectures and workshops on topics of marine conservation, ecosystem-based management and marine spatial planning.

BWI representative participated in the 3rd Mediterranean MPA Forum held in Monaco.

In 2022, funded by the Croatian Ministry of Economy and Sustainable Development, BWI has started development of national Monitoring program for cetaceans and sea turtles. The Monitoring program will define methodology for collection and analysis of data on cetaceans and sea turtles, enabling standardized and repeatable assessment of conservation status and supporting reporting obligations according to Habitats Directive.

Public awareness activities:

Continuous education is carried out through Lošinj Marine Education Centre (LMEC) which hosts permanent and temporary exhibitions, lectures and workshops. It was visited by approximately 10.000 visitors in 2020/21. The BWI has organized two national Dolphin Day events. Through volunteering program we have had 21 participants being introduced to cetacean research and conservation activities.

In addition, the research and conservation work of the BWI has been featured in hundreds of TV, radio and electronic and published media, while dissemination of digital information material is continuous through BWI web and social media (FB with over 35.000 followers, Twitter 390 followers, LinkedIn 800 followers, Instagram with 3325 followers). BWI participated in PlasticBusters, an EU INTERREG Med funded project aiming to maintain biodiversity and preserve natural ecosystems in pelagic and coastal marine protected areas by consolidating Mediterranean efforts against marine litter.

During tourist season BWI places focus on raising media and public awareness of locals and tourists about different Codes of conduct (while using boats, why not feed dolphins, why not swim with dolphins, why not keeping dolphins in captivity) to limit disturbance of Cetaceans.

BWI developed and is promoting use of the Marine Ranger app, a citizen-science platform aimed to provide info and collect data about observations, strandings and by-catch of marine mammals.

BWI is participating as partner in development of the new Visitor Centre on Biševo Island developing educational activities and centre content related to large marine vertebrates.

BWI organized 5 underwater and beach cleanup activities at various locations on the island of Lošinj.

Research activities:

Adriatic Dolphin Project

The BWI carries out long-term monitoring of several resident coastal populations of bottlenose dolphins in the Adriatic Sea under the Adriatic Dolphin Project. During implementation in 2020, 2021 and first months of 2022 the BWI conducted 314 dedicated boat-based photo-ID surveys on bottlenose dolphins in the areas of western Istria, Cres-Lošinj archipelago, North Dalmatia and around the island of Vis. Total of 29.300 km of distance was traveled and 567 sightings of bottlenose dolphins were recorded during surveys.

As part of national monitoring conducted for the Croatian Ministry of Economy and Sustainable Development in 2021 4-months long photo-ID surveys were carried out in 3 Natura 2000 sites for *Tursiops truncatus* in Croatia, while monitoring in another 3 sites is being carried out in 2022.

Currently, the Adriatic bottlenose dolphin reference dorsal fin catalogue of BWI counts over 4000 individuals!

Since 2021 BWI organizes focused biopsy sampling campaigns on resident coastal bottlenose dolphin population of Lošinj and Vis archipelago to understand population structure, social dynamics, relatedness, and dispersal mechanisms. Samples will be used for other analysis (stable isotopes, pollution, etc.).

Aerial surveys

BWI has conducted aerial survey of the northern Adriatic during January and February 2020 through EU co-funded LIFE Euroturtles project, during which a total distance of 2846 km under favorable conditions were flown and 47 sightings of bottlenose dolphins were recorded.

During 2021, the BWI (funded by Croatian Ministry of Economy and Sustainable Development) in cooperation with ISPRA (Italy) has conducted an aerial survey of the whole Adriatic, except the Albanian waters, during which a total of 8409 km under favorable conditions were flown, 71 bottlenose dolphin, 19 striped dolphin, 2 Cuvier's beaked whale and 1 common dolphin sightings were recorded.

The next whole Adriatic aerial survey is planned for spring/summer 2022.

Bycatch and depredation

As part of EU funded LIFE Delfi project research of dolphin-fisheries interaction started in 2021 along west coast of Istria (N. Adriatic). Investigation in the scale of *Tursiops truncatus* by-catch and depredation and effectiveness of acoustic deterrent devices installed on bottom set gillnet has been carried out in the period of June-July and November 2021 using 7 observers on 3 fishing boats.

Acoustic research

During 2020 and 2021, as part of EU Interreg Soundscape project, the BWI deployed hydrophones at two locations recording sound 24/7. In addition, boat positions were recorded using theodolite from two vantage points. Within the same project, BWI has recorded reference sounds of seven boat types under controlled conditions, to be used in modeling the underwater sound propagation and its influence on bottlenose dolphins' habitat use. Recorded sound from this and additional two recorders are also analyzed for cetacean vocalization and species presence identification (including dolphins and fin whales).

Since 2018. the BWI is deploying an autonomous acoustic recording device (HARP) developed by Scripps IO that enables continuous recording of sounds in the marine environment. HARP is deployed at 1000m depth in south Adriatic. Data analysis provided information on presence and habitat use of different Cetacean species, particularly Cuvier's beaked whales, sperm whales and fin whales and impact of seismic surveys carried out in Montenegro.

Other species

During spring and summer 2020 presence of fin whales in the central and northern Adriatic was reported. BWI researchers surveyed the area of Velebit Chanel and photographed a single individual in August while in September another individual was photographed, biopsied and vocalization was recorded. Comparison of documented encounters with public reports indicated that several individuals were present in the Adriatic during spring/summer/early fall 2020.

BWI recorded presence of *Pseudorca crassidens* in the northern Adriatic, near Rijeka in April and May 2021.

Other:

Through LIFE Delfi, an EU co-funded project, the BWI developed a citizen science app “Marine Ranger” detailing all Cetacean species recorded in the Mediterranean Sea and providing platform to report observations to scientists. The mobile app is available for Android and iOS from www.marine-ranger.org currently in English, Croatian and Italian. The app also enables citizens to directly call phone numbers of organizations registered for providing aid in case there are animals in distress and also enables partners to receive automated messages when reports are made based on selected preferences. Participation/use is free hence we are inviting other interested organizations to join in and use the app or help in promoting it with the public.

BWI collaborates with University of Primorska where several courses are being taught to undergraduate and graduate students.

BWI participated on several national and international conferences, workshops and meetings about marine mammals and anthropogenic impacts presenting its work and published a number of scientific articles.

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Constaratas, A. N., Holcer, D., & Širović, A. (2022b, 5-7.4.2022). Cuvier’s beaked whale and sperm whale presence in the southern Adriatic Sea. 33rd Conference of the European Cetacean Society, Ashdod, Israel.

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CONSERVATION BIOLOGY RESEARCH GROUP (University of Malta)**Name of the Representative: Prof Adriana Vella, PhD (Cambridge)****Capacity building activities:**

Lecturing at the University of Malta on cetacean species and supervising scientific research projects on cetacean in Maltese waters and in Italian waters to develop the skills in cetacean conservation research and monitoring in the Mediterranean. Receiving internship requests for scientific research exposure by university students from abroad.

Public awareness activities:

Writing news features, talk about cetaceans on the prime-time TV news linked to conservation needs and ongoing research efforts. Involve promotion of marine biodiversity and cetacean conservation in schools and assist in activities run in collaboration with the BICREF NGO.

Examples:

- <https://www.um.edu.mt/newspoint/news/2021/05/dolphins-whales-maltese-waters>
- <https://www.independent.com.mt/articles/2021-05-17/newspaper-lifestyleculture/Dolphins-and-whales-studied-in-Maltese-waters-as-part-of-our-biodiversity-6736233546>
- <https://www.um.edu.mt/newspoint/news/features/2020/january-/umacademicspresentlatestmarineresearchatbarcelonaconference>
- <https://timesofmalta.com/articles/view/research-on-underwater-noise-cetaceans-presence-in-the-med.767728>
- <https://www.independent.com.mt/articles/2020-05-03/local-news/COVID-19-may-help-us-understand-what-it-means-for-marine-life-to-suffer-from-their-own-pandemics-6736222700>
- <http://bicref.org/news/conservation-of-whales-and-maltese-seas-biodiversity/>

Research activities:

Continued with long-term research on cetaceans in Maltese waters, ongoing since 1997 (through dedicated marine and aerial surveys with contributions to conferences and scientific publications/reports) and extending efforts to Italian waters, such as through the SEA MARVEL project, an Italia-Malta Interreg funded project that will run till 2023, which has involved ACCOBAMS as an associate partner. Previous to this work on acoustic monitoring of noise in Maltese waters was possible according to MSFD standards through the QuietMED I & II projects. This research group is also active in cetacean strandings around the Maltese islands, collecting information and samples accordingly. The representative is still the National Contact Person for the European Cetacean Society after 20 years with active participation in this international cetacean society, including the organization of the ECS conference in Malta for the first and only time till now in 2015.

After organizing an international workshop on Mediterranean Common Dolphins some years back in collaboration with other scientists and NGOs, a special issue and review dedicated to this species were published in *Aquatic Conservation: Marine and Freshwater Ecosystems*. This was also possible through the involvement of this research group and its representative.

CIMA RESEARCH FOUNDATION (afterwards quoted as CIMA)

Name of the Representative: Aurelie MOULINS & Massimiliano ROSSO

**Capacity building activities:**

- Professional qualification course “*High Quality Whale-watching course*” in the framework of the EcoSTRIM project and in collaboration with ACCOBAMS. [2020: 16 participants]. **Supporting Activity CA2d.**
- Professional qualification courses for WWF Skippers of *vele del panda* “*Buone pratiche per l'osservazione dei cetacei in mare*”. **Supporting Activity CA2d.**
- Professional qualification course “*Accompagnatore di Turismo Marino*”¹ funded by Regione Liguria & EU FSE 2014-2020 organized and hold by the CIMA staff. [2021: 15 students]. **Supporting Activity CA2d.**
- Professional qualification course “*SICOMAR plus - Web GIS Platforms for marine monitoring*” in the framework of the SICOMARplus. [2021: 33 participants].
- Professional qualification course “*Navigazione commerciale e cetacei nel Santuario Pelagos*” in the framework of the SICOMARplus. [2021: 120 participants]. **Supporting Activity CA2c.**
- Master's degree course – University of Genoa “*Cetologia e metodologie di monitoraggio dei cetacei – 107010*”² organized and hold by the CIMA staff. [2021: 18 students]. **Supporting Activity CA4a.**
- Master's degree course – University of Genoa “*Tecnologie innovative per il biomonitoraggio in ambiente marino – 107010*”³ organized and hold partially by the CIMA staff. [2022: 13 students]. **Supporting Activity CA4a.**
- CETASMUS program⁴, a training experience of 2-6 months on methodologies for cetacean monitoring offered by CIMA. [2020-22: 22 partecipants from 7 countries]. **Supporting Activity CA4a.**
- Capacity Buiding of the INRH staff in the framework of the Projet MAVA Déprédation “*Vers des solutions aux interactions entre communautés de pêcheurs et cétaqués Pêcheurie sardinière à la senne en Méditerranée marocaine*”. [2021: 10 participants]. **Supporting Activity CA2a.**

¹ <https://www.cimafoundation.org/news/fondazioni/corso-di-formazione-per-accompagnatore-di-turismo-marino>

² <https://corsi.unige.it/off.f/2021/ins/51834>

³ <https://corsi.unige.it/off.f/2021/ins/51835>

⁴ <https://www.cimafoundation.org/cetasmus-programme/cetasmus.html>

Public awareness activities:

- Italian TV show promoting the HQWW⁵
- 3000 copies of “whale risk”⁶ distributed to whale-watching operators, municipalities, tourist offices, schools, protected areas in the framework of the EcoSTRIM project.
- 13 totems for touristic information about the HQWW⁷ distributed in 10 municipalities in the framework of the EcoSTRIM project.
- 20 posters and video pill⁸ to raise public awareness displayed on ferries and 10 posters for the crew displayed on the command deck in the framework of the SICOMARplus project.
- The photographic exhibition with multimedia technology “Pinne in pillole: i cetacei si raccontano” during the Festival dell'acquasola. [2 days in May 2020].
- Quiz and video pills “*Chi Vuol Essere Marinaio*”⁹ during the Festival della Scienza organized by CIMA and ARPAL in the framework of the SICOMARplus project. [10 days in October 2021].
- CIMA was invited by 10 classes of secondary and primary schools, kindergarten, Province of Savona and Genoa to introduce marine environmental issues and present the cetacean populations. [2020, 2022].
- 8 events to share the know-how on cetaceans:
 - online, organized by a whale watching company of Genoa [2020]¹⁰
 - online, organized by WWF Italia “Aperipelagos” [2020]¹¹
 - online, for the book presentation: “Scoglio storia di un capodoglio” di Davide Siri [2020]
 - online, for the presentation of the documentary “Giganti del Mediterraneo” [2020]¹²
 - in-presence, organized by Spotorno municipality [2020,2021]
 - in-presence, organized by the Propeller Club Port of Savona [2022]¹³
 - in-presence, organized by Marina di Loano [2022]

Research activities:

[2020,2021] SICOMAR plus project¹⁴ (EU cross-border Interreg Italy-France Maritime 2014-2020). Activities: monitoring cetacean presence in the Ligurian Sea during winter season with ferries; ii) mapping hotspots for large whales, marine traffic and risk of collisions along ferry lines; iii) raising awareness with the professional training for ferry crews; iv) summer school to use support decision making platform. **Supporting Activity CA2c & CA1a.**

[2020,2021,2022] GIAS project¹⁵ (EU cross-border Interreg Italy-France Maritime 2014-2020). Activities: i) developing a tool kit to monitor cetacean carcasses; ii) testing LIMPET tags to assess tag's reliability in particular tagging Cuvier's beaked whales. **Supporting Activity CA1b & CA1d.**

⁵ https://www.striscialanotizia.mediaset.it/video/whale-watching-cos-e-e-come-si-pratica_77151.shtml

⁶ <https://www.ligurianseatrails.com/whale-risk/>

⁷ www.ligurianseatrails.com/whale-watching-genova

⁸ www.corsocetacei.it

⁹ <http://interreg-maritime.eu/web/sicomarplus/-/pronti-per-salpare->

¹⁰ <https://www.facebook.com/GolfoParadisoWhaleWhatching/videos/337498907220393>

¹¹ <https://sub.wwf.it/eventi/aperipelagos-20-luglio-il-whale-watching-e-limportanza-dellecoturismo>

¹² <https://vimeo.com/497939246>

¹³ <https://marinadivarazze.it/santuario-pelagos-sinergie-e-collaborazione-per-la-tutela-dei-cetacei/>

¹⁴ <http://interreg-maritime.eu/web/sicomarplus>

¹⁵ <http://interreg-maritime.eu/web/gias>

[2020,2021] EcoSTRIM project¹⁶ (EU cross-border Interreg Italy-France Maritime 2014-2020). Activities: i) reporting the list of commercial whale-watching activities; ii) implementing the High Quality Whale Watching® in Italy (Liguria, Tuscany, Sardinia); iii) promoting the High Quality Whale Watching® in Italy with Whale Risk and Tourist information panels; iv) developing the smartphone App ILogWhales (google store) to collect cetacean data for whale-watching reporting. **Supporting Activity CA2d.**

[2021] Assessing resilience of beaked whale populations to human impacts: acoustical study project. Office of Naval Research of the Department of the Navy of the United States of America. Activities: (i) deploying D-tags on Cuvier's beaked whales in the Ligurian Sea; (ii) recording acoustic environment of the Cuvier's beaked whale; (iii) assessing the reactions of Cuvier's beaked whale to noise. **Supporting Activity CA1b.**

[2020,2021,2022] Ziphius project. Main objective: evaluation of habitat use, home range analysis, abundance estimate, social structure, interactions with human activity (marine traffic). **Supporting Activity CA1b.**

Other:

The open-source platform Seawetra¹⁷ is an integrated web-GIS platform developed by CIMA with marine environmental data produced in the Copernicus framework and observed data. In 2019, it was capitalized by SICOMARplus with AIS data and maps of collision risk between large cetaceans and commercial vessels. All types of data can be used for decision-making processes.

Publications:

- David et al. 2022. Computing ship strikes and near miss events of fin whales along the main ferry routes in the Pelagos Sanctuary and adjacent west area, in summer. *Aquatic Conservation: Marine and Freshwater Ecosystems*.
- Galli et al. 2022. Microplastic abundance and biodiversity richness overlap: Identification of sensitive areas in the Western Ionian Sea. *Marine Pollution Bulletin*.
- Grossi et al. 2021. Locating ship strike risk hotspots for fin whale (*Balaenoptera physalus*) and sperm whale (*Physeter macrocephalus*) along main shipping lanes in the North-Western Mediterranean Sea. *Ocean & Coastal Management*.
- Karaa et al. 2021. First records of Cuvier's beaked whale (*Ziphius cavirostris*, G. Cuvier 1823) strandings along the Tunisian coast. *Mar Biodivers Rec*.
- Ham et al. 2021. Predicting summer fin whale distribution in the Pelagos Sanctuary (north-western Mediterranean Sea) to identify dynamic whale–vessel collision risk areas. *Aquatic Conservation: Marine and Freshwater Ecosystems*.
- Baini et al. 2021. First assessment of POPs and cytochrome P450 expression in Cuvier's beaked whales (*Ziphius cavirostris*) skin biopsies from the Mediterranean Sea. *Sci Rep*
- Tepsich et al. 2020. Trends in summer presence of fin whales in the Western Mediterranean Sea Region: new insights from a long-term monitoring program. *PeerJ*
- Tepsich et al. 2020. Whale Watching in the Pelagos Sanctuary: Status and Quality Assessment. *Frontiers in Marine Science*.

¹⁶ <http://interreg-maritime.eu/web/ecostrim>

¹⁷ <https://www.seawetra.org>

ECOOCEAN INSTITUTE

Name of the Representative: Léa DAVID



Capacity building activities:

Several actions have been carried out in the field of capacity building.

Firstly, interventions on cetacean study techniques, the species present, threats and solutions to limit impacts were made within the framework of a BTS pro at the “Lycée de la mer” in Sète.

In addition, several training sessions of 2 to 3 days were conducted with professionals working on marine sites (e.g. harbors). These trainings provide theoretical knowledge on cetacean species in the Mediterranean, their conservation status, threats and impacts related to anthropogenic noise, legal frameworks governing the protection of species and measures to limit these impacts.

Public awareness activities:

As every year for the past 15 years, children with cancer or in remission have taken to the sea for a week on board a sailboat, to discover the marine environment, its inhabitants (cetaceans, birds, turtles...), study techniques and individual and collective means to act to limit the impacts of human activities on this fragile environment.

Intervention sessions with the CETAMER educational tool have allowed us to raise awareness about the marine environment, in particular about the sharing of space and resources between animals (cetaceans, birds...) and human activities, from the coast to the open sea.

In addition, we had the opportunity to intervene several times in the local, national or international media, during which we raised awareness on the fragility and the need to protect cetaceans.

Research activities:

We have conducted a study on the long-term evolution of striped dolphins and fin whales in the northwestern Mediterranean over 25 years. This monitoring carried out from sailboats, in the framework of different studies as well as with the contribution of structures managing ecovolunteers (supervised participatory science), shows the importance of a monitoring by local actors on a standard methodological basis in order to have long-term data bases.

Our partnership with the Fix Line Transect Network, FLT Med Net, as a French partner on board ferries continues. We are active at the Mediterranean level in this network, to ensure a standardized long-term monitoring of cetaceans, turtles and macro-waste over large areas. This network is part of the Long-Term Monitoring Programme (LTMP) of ACCOBAMS.

Finally, we have conducted a survey of bottlenose dolphins, human activities and anthropogenic noise in the Gulf of Lion, analysis in progress. This study with *in situ* and parallel measurements of cetaceans, human activities and noise generated by the latter will provide valuable information on the subject.

In addition, within the framework of ACCOBAMS, we have research partnerships on various topics, including Critical Cetacean Habitat (identification of important areas for cetaceans that would be exposed to human activities) and climate change.

Other:

Intervention as cetacean experts, notably with:

- SPA/RAC,
- The French Office for Biodiversity
- Various technical meetings within the framework of the DCSMM Member of the Scientific Committee of ACCOBAMS
- Expert, advisor, coordinator for the Conservation and Management Plan for Risso's dolphin, for the National Action Plan of Algeria

GREEN BALKANS NGO

Name of the Representative: Dimitar Popov



Capacity building activities:

2 experts attended CeNoBS project workshop on analysis and threshold values based on cetacean aerial survey in September 2020 (online)

Green Balkans NGO organized Final Capitalization workshop of CeNoBS project in Sofia, Bulgaria in June 2021

2 experts attended GFCM Virtual training course on the identification and handling of vulnerable species incidentally caught during fishing operations in the Mediterranean and the Black Sea in February 2022

1 expert attended ACCOBAMS ASI Data Analysis Workshop Eastern Mediterranean planned for Istanbul but conducted online in March 2022

Public awareness activities:

Joint event for kids with Stara Zagora Library in July 2020

November 2020 was dedicated to cetaceans as part of awareness raising campaign for Natura 2000

In May 2021 Natura 2000 Day was celebrated in more than 10 towns and cities in Bulgaria and cetaceans were among flagship species

European Maritime Day was celebrated with Trakia Community Centre in Plovdiv in May 2021

2 real size models of Black Sea common dolphin were produced within CBC Black Sea BioLearn project and exhibited during diverse events in Burgas, Sozopol, Pomorie

Black Sea Action Day – 31 October 2021 was celebrated jointly with school of Chernomorets town

Book about dolphins, the sea and ecology was produced and printed in Bulgarian, English version is available online:

<https://greenbalkans.org/delfini/en/Book-about-dolphins-the-sea-ecology-and-everything-else.p18439>

Research activities:

Vessel surveys using distance sampling line transect method are regularly organized in Bulgarian territorial waters in the Black Sea with coverage of 7%. Surveys were made in May and July in 2020 and 2021 as well as winter survey November-February 2020/21. Abundance and density were estimated using Distance software.

Regular data on strandings is being collected.

In 2020-2021 project on bycatch monitoring and mitigation was completed supported by ACCOBAMS SCF. 3 models of pingers were tested on turbot bottom set gillnet on basis of agreements with different fishermen. In total 243 880 m of bottom set gillnets have been monitored. 78 cetaceans have been recorded as bycatch in the gillnets – 72 Black Sea harbour porpoises, 3 Black Sea bottlenose dolphins and 3 Black Sea common dolphins. 2 water birds were also found in the nets – 1 Coot and 1 Moorhen. Pregnant porpoises were found in spring and lactating in summer. Overall mean bycatch rate was 0.32 ind./km net while standardized bycatch rate of individuals per effort (square kilometers*days) varied between 0 and 45.79 (mean – 7.01). Trials of PAL pingers over two years have shown reduction of bycatch with 86% that was statistically significant ($p < 0.05$). Pilot study of microplastics in gastrointestinal tract of Black Sea cetaceans (harbour porpoise and bottlenose dolphin) was made revealing existence of fibres and fragments (size = 5 - 25 mm) in all samples (1-277 items). Complementary study of prey items has revealed large dominance of whiting (*Merlangius merlangus*) found in 73% of stomachs. Histological study revealed that almost half of the bycaught cetaceans were suffering of pneumonia.

In January 2021 expert from Green Balkans was part of the IMMA Black Sea identification workshop.

Since 2020 a joint pilot passive acoustic study project – BlackCeTrends – was started in partnership with Chelonia UK, Mare Nostrum NGO (RO), TUDAV (TR), UKRSCEC (UA) and ISU (GE). In Bulgaria 4 FPODs are installed at 4 stations – Kavaran, Balchik, Ravda and Sozopol. Data is being collected and expected to be analyzed.

Other:

In March 2020, statement was prepared and submitted to Bulgarian Ministry of Environment and Water concerning seismic survey by TOTAL Oil company in Khan Asparuh block conducted by Oceani Vega seismic vessel in period March-May 2020. No info about MMO and PAM was available but main concern was being that the survey took place during spring season when highest density of endangered Black Sea harbour porpoise was registered in Bulgarian EEZ. No EIA or AA was required by MOEW on the grounds of lack of data for sensitive areas and critical habitat for cetaceans in the block and in addition no N2000 sites being affected according to the ministry.

GROUPE DE RECHERCHE SUR LES CETACES (GREC)

Name of the Representative: Dr. Alexandre Gannier



Capacity building activities:

From 2020 to 2022, GREC conducted its level 1 cetology courses in Antibes, with a total of 46 trainees (from three countries, including the August 2022 session) despite the very difficult conditions due to Covid. These courses take place every year at the end of the summer, with 4 GREC teachers.

Similarly, the level 2 courses (one week of practical training in cetology) were carried out in the Mediterranean, for a total of 11 trainees on board.

Public awareness activities:

The publication on the GREC website (www.cetaces.org) follows a steady rhythm, and now it is relayed by a Facebook page that counts 2500 followers, which generates a good impact of the publications.

With the organization SOS Grand Bleu, a conference on the changes in the cetacean population in the Côte d'Azur area was organized in spring 2022, with a large audience.

Several articles in the regional press have focused on safeguarding the tranquility of dolphins in the Côte d'Azur area and informing fishermen about the need to report incidental catches, which constitute a significant proportion of the reported mortality.

Research activities:

The notable actions were: (1) an acoustic and visual survey during the period of covid confinement (May 2020, 20-mile zone of the Liguro-Provençal), (2) a survey in the adjacent Atlantic zone (July-August 2020 and 2021). These two actions have been initiated with our own funds using the research sailboat Anacaona (12 m).

A collaborative work on fin whales was pursued (project manager Tethys). Work on updating sperm whale photo-identification data was continued (open to future collaborations).

Work on acoustic repertoire, disturbance and activity of blue and white dolphins is ongoing, with possible publication in 2022 (submitted and under review).

A program to analyze *Stenella* diets (stomach contents) has been started with funding from Pelagos France, in conjunction with the French RNE.

Other:

It should be noted that GREC conducted 5 operations to assist cetaceans in trouble (three species) during the period. GREC has committed its own non-budgeted means to carry out these operations, with success in all cases (dolphins and whales released and secured from the public).

The ACCOBAMS logo has not been used so far.

ISRAEL MARINE MAMMAL RESEARCH AND ASSISTANCE CENTER (IMMRAC)

Name of the Representatives: Dan Kerem & Oz Goffman

**Capacity building activities:**

Training new IMMRAC volunteers in the use of the Delphis palm computer during cetacean surveys and on collecting data from stranded cetaceans

Public awareness activities:

Frontal and zoom lectures to kindergartens, schools, general public (senior citizen homes, kibbutzim) and stakeholders (Navy, sail-clubs, gas industry, lifeguards).

2020 – 36

2020-2021 – 24

2021-2022 - 23

Research activities:

- Fisheries interactions: Bimonthly one-day sailings aboard working trawlers.
- Morphometric research on skeletal elements of bottlenose and common dolphins: Comparison of Black Sea & eastern Mediterranean populations.
- Diet analysis of resident cetaceans:

Brand, D., Edelist D., Goffman, O., Hadar, N., Scheinin, A., Kerem, D. 2021. Common dolphins, common in neritic waters off southern Israel, demonstrate uncommon dietary habits. *Aquatic Conservation: Marine & Freshwater Ecosystems* 31(S1): 15-21.

- Collecting citizen-science opportunistic reports on cetaceans in Israeli waters:

Kerem, D., Galili, O., Goffman, O. 2020. News from IMMRAC 2020. *FINS – Newsletter of ACCOBAMS* 10: 23.

Other:

- IUCN assessment of the Mediterranean cetacean subpopulations

Kerem, D., Frantzis, A., Scheinin, A. & Goffman, O. 2021. *Steno bredanensis* (Mediterranean subpopulation). The IUCN Red List of Threatened Species 2021: e.T160158217A160158353. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T160158217A160158353.en>

INTERNATIONAL ASSOCIATION OF OIL & GAS PRODUCERS (IOGP)

Name of the Representative: Harvey Johnstone



Capacity building activities:

IOGP will be launching a new underwater sound research database online tool which is expected to be available at the end of May/early June. IOGP will be launching the tool via social media.

This establishment of this database was identified from regulatory authority feedback: that the level of scientific information in EIA's has been variable. The online database is a signposting tool to direct users to available scientific research publications/studies associated with Exploration & Production activities. The database allows the user to filter the search by stages of E&P activity as well as the stages of assessment.

Public awareness activities:

IOGP has a dedicated website for sound and marine life (S&ML) at [Sound and marine life | IOGP](#) which contains many links to reports, information and fact sheets on various aspects of S&ML. In addition, seismic surveys and marine mammals are discussed with more detail at [Seismic Surveys & Marine Mammals | IOGP](#).

We have also established a scientific research joint industry programme (JIP) on sound and marine life which has been endorsed as an Ocean Decade Action by UNESCO. The JIP has its own website at [IOGP Sound & Marine - Home \(soundandmarinelife.org\)](#). All of the scientific research funded or co-funded by the JIP is available in this library : [DMS Home \(intertek.com\)](#)

Anyone can subscribe to a mailing list to receive news and updates from the JIPs.

Research activities:

IOGP has adopted a pro-active role to improving scientific knowledge and understanding of potential impacts associated with underwater sound, through the establishment of the Sound and Marine Life Joint Industry Programme (SML JIP). Research projects funded through the JIP are categorised into several disciplines:

- Sound source characterisation and propagation
- Physical effects of sound on the hearing system
- Behavioural responses and biological significance
- Mitigation and monitoring
- Development of research tools

Collaboration is one of the founding principles of the JIP. We have deliberately engaged world-leading scientists to guide our research and ensure that it conforms to the highest standards. The JIP is informed by an advisory board of experts and contracts with leading scientists to conduct research. Scientists must submit papers to scientific journals and release their data to the public.

This JIP has been endorsed by UNESCO as an Ocean Decade Action.

KYMA SEA CONSERVATION & RESEARCH

Name of the Representative: Silvia Frey

**Public awareness activities:**

KYMA sea conservation & research conducted two public awareness campaigns during the period 2020- 2022: On one hand about fisheries and overfishing and the threats cetaceans and other marine animals face due to entanglements. On the other hands the NGO has initiated a petition in Switzerland to stop microplastic entering the waterways. The petition is running till the end of April 22 and will be delivered to the authorities in May 22. Although the petition and associated public awareness activities have been set up in Switzerland not being part of the ACCOBAMS area it may be a signal to other countries if steps are going to be taken against aquatic microplastic pollution by the authorities in Switzerland.

We are also part of the international campaign “stop funding overfishing” which calls for an end of harmful subsidies to fisheries which is accompanied by online information serving to raise public awareness with reference to overfishing.

Research activities:

KYMA sea conservation & research is conducting cetacean surveys in the western part of the Ionian Sea as well as in the south-eastern part of the Thyrrenian sea since 2020. The survey results are delivered to the ACCOBAMS database of OBIS Seamap. The project is run with the help of volunteers and thus serves also to educate people about the life and threats of cetaceans in the Mediterranean Sea and the work of ACCOBAMS.

The project is also collecting information about the plastic pollution in our research area. Thereby we are surveying microplastic floating at sea according to a protocol developed by the Interreg Mediterranean MEDSEALITTER program and are collecting microplastic samples since 2021 which are integrated in the respective ocean pollution database of the UNEP Global Environment Monitoring program.

MARECAMP ASSOCIAZIONE ODV

Name of the Representative: Dr Clara Monaco

**Capacity building activities:**

We have strengthened collaborations and exchanges with our partners, and we have expanded the circle of volunteers and new organizations with which we have initiated partnerships aimed at completing and improving the knowledge and skills of each.

We have strengthened our network of collaborations with universities, national entities, schools, and experts in the field of marine biology and conservation.

A specific team of students and marine biologists was trained for carrying out research, eco-tourism and dissemination activities.

We have promoted our projects with administrations at regional and international level. Output and results of our activities have been shown in scientific journals and by the Press.

New donors trust in our mission and partially support us in maintaining our boats and little projects. Marecamp is part of the 30x30 national campaign in Italy.

Public awareness activities:

We have been the unique promoters and organizers of the “European Maritime Days in My Country” in Sicily for the last 4 years, starting from the “Giornata Nazionale del Mare”, the “Ocean Day”, to the “Maritime weeks” dedicated to schools, youths, and different categories of sailors, using participative and citizen-science approaches. Activities included sea cleanup, collective monitoring of cetaceans and sea turtles, informative sessions about protected marine species.

We took part to the biodiversity cluster, marine section, of the “City Nature Challenge 2021”. When the pandemic hindered some activities, we continued to carry out the same with live marine surveys on the social networks, online challenges for the new generations, webinar for schools and different categories of local associations, live from the boat for telling guidelines, etc. publicized how to conduct a sustainable lifestyle, how to respect the code of good conduct for observing dolphins, what to do in case of strandings. With the “Il Mare che Vogliamo”, “Cetologo che Passione”, “Generazione Blu” projects, Marecamp has continued to be active in many secondary schools of Catania, Italy, about sea education and field experience on cetaceans to support awareness on marine vulnerable species and threats.

With our online form we continued to collect data from everyone communicate sightings of cetaceans and sea turtles. The main activities of the association have been shared through meetings, press releases, social networks, regional and national tv.

Research activities:

With the volunteer programme “Dolphin watching and conservation in the Gulf of Catania” we study cetaceans’ population dynamics in the Sicilian waters, with a special focus in the Gulf of Catania year-round. The most frequent species in the area are bottlenose dolphin (decreasing) and striped dolphin (stable); common dolphin and sperm whale

are sighted too. Less frequently we observed fin whale and rough-toothed dolphin. We have no reports on the presence of Risso's dolphin from 4 years.

Surveys were dedicated also to collect data on human threats like marine traffic and marine litter that are very strong in our study area.

We supported internships and university thesis about the distribution of cetaceans in Sicily, Photo-ID, bioacoustics, interaction cetaceans-fisheries.

It is ongoing the "Depredation 2" project on new mitigation strategies to depredation events, testing an innovative alert system on small-scale fishing gears.

We participate in sharing data on EmodNet, InterMed, and for the annual reports of the International Whaling Commission.

Last year we have taken part to the FLT network managed by ISPRA carrying out marine surveys along the Catania-Malta, Porto Empedocle-Lampedusa, and Trapani-Pantelleria routes, crossing the Strait of Sicily.

Other:

The pandemic event slowed down and damaged many activities of the association which had to survive in recent years. However, we have done our best to keep basic research and outreach activities alive.

Marecamp still is a small entity, however, effort of the volunteers is very high as well as the level of its projects and achieved results.

We continue to be worried about the state of the common dolphin and Risso's dolphin populations and we believe that dedicated monitoring could clarify the situation, so we continue to search for good resources which can permit to the association the increasing of the observation activities and the recruitment of specialized personnel to in-depth these issues.

Northeastern Sicily is not well considered in the last maps of ACCOBAMS concerning CCH and IMMAs; at the same time, the particular cetacean abundance in the area don't emerge from the ASI campaign.

So, we sincerely renew our recommendation to include the Gulf of Catania and nearby waters in these protected categories, considering the presence of such vulnerable species in such a threatened environment.

MARE NOSTRUM NGO

Name of the Representative: Marian PAIU



Capacity building activities:

In 2021, with the help of Romanian Ministry of Environment, Waters and Forests we organized an online workshop “Roadmap 2030 – Toward the good state of cetaceans” where over 70 people participated, with the purpose to establish a better workflow and collaboration between all the actors involved in the process of marine mammal conservation.

Within „Assessing the vulnerability of the Black Sea marine ecosystem to human pressures” (ANEMONE) project and „Interaction between marine litter and cetaceans in coastal waters of Romania” (CetMal) project, two line-transect and distance sampling training sessions (2020 – ANEMOMNE and 2021 – CetMal) were conducted, where 15 trainees participated.

Under the Memorandum of Understanding between Mare Nostrum NGO, National Institute for Marine Research and Development „Grigore Antipa”, Ovidius University, University of Agronomic Sciences and Veterinary Medicine of Bucharest and Cluj, University of Veterinary and Pharmaceutical Sciences Brno, was developed a scientific framework to identify the natural causes of death among cetaceans, in which four necropsies were performed on this matter. And in the frame of CeNoBS project two participants were attending the online necropsy workshop of Liege University.

In the last 12 years Mare Nostrum NGO coordinates the Stranding Monitoring Network which involves students, teachers, other parties such economic agents from the entire Black Sea coast, institutes and the Basinal Administration. The purpose of this network is to identify all the cases of stranded cetaceans which occur on Romanian coast. In the past 2 years, over 1 500 people have participated on trainings dedicated for this network.

Public awareness activities:

Yearly Mare Nostrum NGO is conducting sessions to inform people about the environmental problems in the Black Sea, especially regarding cetaceans. With around 100 media apparitions, around 6 million people were informed via different channels such as national and local mass media, face to face informing sessions, training sessions, and conferences. Among the media apparitions, Mare Nostrum is organizing public events such as Earth Hour, Green Week, Dolphin Day, ACCOBAMS Day and Black Sea Day, which are including topics concerning the Black Sea cetaceans problems. Due to the pandemic situation caused by the COVID-19, part of these public events was held online, such as on social media platforms.

Not least, in the autumn of 2021, took place the enrolling session for the new observers in the Strandings monitoring network. Approximately, 600 students and teachers were trained with the purpose of cetacean monitoring at the Romanian seashore.

Promoting the “Citizen science” concept, Mare Nostrum created a group on a social platform where people who are sailing in the territorial waters of Romania can join and share their encounters with dolphins. The group was created in 2020 on the occasion of the Dolphin Day celebration where 110 people have joined. Between 2020 and 2021, 56 sightings were recorded from this group, contributing to OBISSeaMap DataBase and MEDACES.

Research activities:

Coordination of Stranding Monitoring Network and task force in collecting data on 164 stranded cases along the Romanian coast.

Even though it is a good source of information, the network only identifies the cases of dead cetaceans, therefore it is needed periodical sea surveys to estimate the abundance of the cetacean in the Romanian Black Sea waters. In this light, two sea surveys within the territorial waters were conducted, one in 2020 under „Assessing the vulnerability of the Black Sea marine ecosystem to human pressures” (ANEMONE) project and the second under the „Interaction between marine litter and cetaceans in coastal waters of Romania” (CetMal) project. In total 15 effective days at sea and 140 sightings, summing 415 cetaceans were recorded.

In addition, another type of survey was done during the fishing season in 2020, under CeNoBS - Support MSFD implementation in the Black Sea through establishing a regional monitoring system of cetaceans (D1) and noise monitoring (D11) for achieving GES project. Five on-board on fishing vessels surveys were conducted, carried out to establish the bycatch rate in the Black Sea.

In the summer of 2020, an initiative monitoring cetacean in the Black Sea through passive acoustic monitoring started. BlackCeTrends project is developed in partnership with 6 partners, 5 from Black Sea riparian countries (Romania, Ukraine, Bulgaria, Turkey, and Georgia) and 1 from the United Kingdom, using F-POD devices developed by Chelonia Limited. During that period was coordinated by the NGO Mare Nostrum. The monitoring aims to identify out the dynamics of cetacean populations, the interaction between species, but also ethological data, being a premiere on the Black Sea.

Other:

The main projects in which the activities were performed, under the Mare Nostrum program “Monitoring and Conservation of Black Sea Cetaceans” were:

| Project | Financing |
|--|--|
| Assessing the vulnerability of the Black Sea marine ecosystem to human pressures (ANEMONE). | CBC JOP Black Sea Basin 2014-2020 |
| Interaction between marine litter and cetaceans in coastal waters of Romania | Sustainable Ocean Alliance (SOA) |
| CeNoBS - Support MSFD implementation in the Black Sea through establishing a regional monitoring system of cetaceans (D1) and noise monitoring (D11) for achieving GES | MSFD Second Cycle: Implementation of the new GES decision and programmes of measures, DG Environment |
| BlackCeTrends | Own funds |
| Adopt a dolphin campaign | Public campaign |

MADEIRA WHALE MUSEUM

Note: The Madeira Whale Museum officially joined as partner in 2022.

Name of the Representative: Luis FREITAS



Capacity building activities:

- Will co-organise a workshop on cetacean genetics in the ACCOBAMS area in September 2022
- Participation in the WGWW meetings (including Revision of the Guidelines for commercial cetacean-watching in the ACCOBAMS Area)

Public awareness activities:

Research activities:

Other:

- Contribution to the CCH meeting in March 2022
- Participation to the Scientific Committee meeting in November 2021
- Contribution to the ASI meeting in September 2021

MARINE MAMMALS RESEARCH ASSOCIATION (DMAD-Deniz Memelileri Araştırma Derneği)

Name of the Representative: Aylin Akkaya



Capacity building activities:

- Online training tools under “**Remote Internship with DMAD**” was released to the local students (with no cost attached) where any local student can sign up and gain key skills on data collection, analysis and report writing.
- **Geographic Information System tutorial** was broadcasted in youtube which have been viewed more than 60,000 viewers.
- Eight different **workshops** were organized on visual and acoustic survey techniques prior to our dedicated survey effort within the Eastern Mediterranean Sea. The workshop was attended by 50 students
- The workshop attendees later invited to participate to the **research survey** of the “Giant Guardians of the Deep Seas” project to gain practical skills.

Public awareness activities:

- An art exhibition was organised in IC Cesme Marina in September 2021 and reached over 200 people through the artwork “Cetaceans of Turkey” in 2021
- Information posters were created with cetaceans of Turkey. The posters were distributed to schools, public halls, fishery cooperatives and governmental bodies.
- “It is too Loud Now!” report has been published. The report summarises the evidence of noise pollution on different species of cetaceans, proposes solutions and ACCOBAMS Resolutions to be used as the mitigation guide.
- The Istanbul Municipality prepared a short documentary in October 2021 about Istanbul Strait dolphins to draw attention to the marine biodiversity of this cosmopolitan city and asked DMAD to contribute to this. The videos can be found on YouTube and can also be seen aboard every ferry in Istanbul.
- A preliminary cetacean sighting network is started in Turkey. Overall, 67 sightings were reported, of which 37% had location references or coordinates to be mapped. Eight cetacean species were reported. The majority of the sightings were reported from Gokceada in the North Aegean Sea (an area where DMAD does not currently have active operations).
- A collaboration was made with Setur Marinas in September 2021. Setur Marinas is a corporation that has the most established and widespread marinas in Turkey, with a total of 10 marinas along the coastline of Turkey and one in Greece. Currently, the marinas display DMAD stickers and posters emphasising the presence of whales in Turkey and the heavy human pressures they are under.

Research activities:

- **Istanbul Strait:** 11 different boat surveys, employing only visual techniques and photo-identification, were conducted with WWF-Turkey since 2020. Each surveyed revealed the presence of bottlenose dolphins, common dolphins and harbour porpoises in the Strait.
- **Dilek Peninsula National Park:** Seasonal survey effort through visual and acoustic survey effort was conducted in the Dilek Peninsula National Park, together with WWF-Turkey. While summer, autumn, winter seasons were covered in 2020 surveys, survey effort was limited to a single summer survey in 2021 due to the restrictions of the COVID-19 pandemic. Common dolphins were the only sighted species, with a group size ranging from two to 12 individuals and subadults were always present within the group.

- **Antalya Bay:** Three days of survey in 2020 and 47 days of survey in 2021 was conducted in Antalya Bay. The low number of survey effort in 2020 is the reflection of the Covid-19 pandemic. Sighting rate showed a steady decline in the Antalya Bay since 2019 with only 19% of sighting chance in 2021 while it was 70% in 2017. Bottlenose dolphins was the most frequently sighted species
- **Eastern Mediterranean Sea of Turkey:** Six seasons were covered, through visual and acoustic survey methodologies, between 2020 and 2022, extending the entire territorial waters of Eastern Mediterranean Sea of Turkey and Finike Seamounths High Sea Marine Protected Area. Delphinid species, sperm whales and Cuvier's beaked whales were encountered during the surveys.

ASSOCIATION MENKAB, IL RESPIRO DEL MARE

Name of the Representative: Biagio Violi, PhD



Capacity building activities:

In the biennium 2020-2022, the researcher of Menkab, il respiro del mare association have been involved in the monitoring activities of several species from the Atlantic Ocean. During such events, the team was involved in several meetings with other partners and researchers in order to monitor efficiently these sightings and manage some unexpected events (e.g., killer whales in Genoa harbour).

Some members of the team have attended a dedicated workshop on sea turtles' protection, monitoring and management organized by Acquario of Livorno. Some members have attended online lectures on cetacean's species (minke whales, humpback whales, killer whales) and population of the North Atlantic. Some members have got the Bosiet (Basic Offshore Safety Induction and Emergency Training) certificate for a safe management of emergencies at sea while offshore. Such certificate has been taken in order to participate in future expeditions within the Mediterranean Sea as MMO or PAM operator. Menkab member are ACCOBAMS MMO PAM operators.

Furthermore, biologists and researchers regularly meet to improve Menkab plans and research activities.

Public awareness activities:

Keeping the main objective of (1) rising people awareness on cetaceans' presence within our Sea and (2) teaching new generations (from children to adult) about anthropic pressures that threat whales and dolphins, several activities have been performed during 2020-2022 biennium. Today, many people still ignore the presence of great whales in the Mediterranean Sea. Menkab with several municipalities (belonging to Pelagos partenary), with other associations, foundations, schools, universities and marine protected areas (Berzeggi and Portofino) has plan different activities:

- Photos and video exhibitions
- lectures with sailors, focused on how to avoid stress cetaceans during navigation and how to behave
- beach cleaning with students of schools
- lectures with students of high school focused on how to distinguishes the different cetaceans species of the Mediterranean Sea and what are the physical parameters to study and how to collect those data.
- Dedicated courses to cetaceans' biology and ecology, open to university students
- participation at "*Festival della scienza 2020 and 2021*" (organized in Genoa, Italy) with lectures online for high schools (in 2020) and exhibition of photos and a multidisciplinary laboratory on how cetaceans use acoustic to interact in the underwater world;
- a short web series called "Close to home" dedicated to curiosities of cetaceans' life. The series aims to shows how close are whales a dolphin to our shoreline of the Ligurian Sea. To date, this series count 6 different episodes. It is open source and can be visualized by everyone. Menkab team use it during several educational activities.

Research activities:

During 2020-2022 biennium, the association Menkab run two research projects: the *CATODON* and the *VISITORS* project. The first one is dedicated to the sperm whale and has three objectives:

- increasing the photo id catalogue (counting 100 individuals to date) of the individuals that cross the study area between Savona and Genoa (the northern side of the Pelagos Sanctuary), and identify individuals sighted within social units, that are rare sighting in this area;
- assessing the presence of SW in wintertime through acoustic, the association is indeed keep going research activities during the wintertime in order to increase the data on sw winter occurrence.

- assessing the population structure of SW within the Mediterranean through genetic analyses. The genetic assessment results have been drafted in a manuscript yet submitted.

The Second project is dedicated to the visitor's species sighted in our study area. To date, killer whales, humpback whales and false killer whales sighting have been analysed and three publications have been done:

Violi, B., Verga, A., ...& Wenzel, F.W. (2021). A wanderer in the Mediterranean Sea: The case of a humpback whale (*Megaptera novaeangliae*) from the West Indies. *Aquatic Mammals*, 47(6), 599-611. <https://doi.org/10.1578/AM.47.6.2021.599>

Mruszczok, M. T., Violi, B., ...& Würtz, M. (2021). Long-distance movements of North Atlantic killer whales (*Orcinus orca*) from Iceland via Spain and Italy to Lebanon. *Marine Mammal Science*, 1-10. <https://doi.org/10.1111/mms.12866>

Calogero, G., Biasissi, E., ...(2021). Occurrence of false killer whales *Pseudorca crassidens* pod in the Ligurian Sea and review of Mediterranean records. *Hystrix* 32(2), 0. <https://doi.org/10.4404/hystrix-00428-2021>

These two projects will be continued in the biennium 2022-2024.

MIRACETI

Name of the Representative: H  l  ne Labach



Capacity building activities:

- *CA2 Whale Watching*

Annual animation of the High-Quality Whale-Watching[®] brand, supported by the Ministry of Ecological Transition and the ACCOBAMS:

- Coordination of the animation
- Training sessions
- Assessments
- Creation and dissemination of communication materials;
- Development of a long-term economic strategy to improve the added value of the brand;
- Expertise on whale-watching and the implementation of the High Quality Whale-Watching[®] brand;
- Writing articles in magazines, expert journals or general public.

- *CA2 Ship strikes*

Annual animation of a program "Commercial navigation and cetaceans" to limit collisions in the Mediterranean, supported by the Ministry of Ecological Transition:

- Scientific and educational coordination of the REPCET[®] network;
- Implementation of a development strategy to improve the performance of REPCET[®];
- Participation in workshops on the project of Particularly Vulnerable Maritime Zone in the Mediterranean;
- Regular exchanges with shipping companies on the subject of collisions;
- Training of sailors and students (ENSM of Marseille);
- Educational engineering to deploy the theme "Commercial shipping and cetaceans" in maritime training centers; Creation and dissemination of tools to promote REPCET[®] and to raise awareness of collisions;
- Publication of an annual (and ten-year 2010-2020) assessment of the reports published on REPCET[®].
- Intervention with the students at the National Maritime School
- Organization and participation in various national, international and local institutional meetings related to collisions.

Public awareness activities:

- Writing of a press release in 2020 "Deconfinement: what impacts on cetaceans?" and organization of a press conference to present the good approaches to cetacean observation (27 media coverage).
- Joint writing with CIMA Research Foundation of a short article for the FINS 2020 Newsletter on the missions carried out in France and Italy in the framework of the HQWW[®] brand.
- Organization of about ten conferences and debates on different topics (waste, whale-watching, collisions, etc.)
- Animation of numerous information stands, notably at the Generation Nature Spaces of the IUCN World Conservation Congress (2021). These events gave us the opportunity to introduce the interactive game "Odycet: discovering the world of cetaceans" to different audiences (<https://break-first.eu/whale-watching/index.html>).
- Organization of pedagogical animations in an elementary school of Martigues (2021);
- Participation in the operation "Martigues Propre" (2020) and in the "F  te de la Science": realization of cetacean cards for the "Street Science" course (2020) and organization of the "C  ta'Science" festival in Carro (2021);

- Creation of an educational exhibition (6 kakemonos) presenting the place of humans and cetaceans in the ecosystem.
- Joint accompaniment with the artist Anne Defréville of a mural project on the theme of cetaceans in the neighborhood houses of Martigues (2021);
- Distribution of annual newsletters on the High Quality Whale-Watching® label;
- Animation of social networks (Facebook and Instagram) dedicated to raising public awareness, including the HQWW® brand Facebook page.

Research activities:

- *CA1: Improve knowledge on the conservation status of cetaceans*

Development of a cetacean monitoring strategy and support for the implementation of a bottlenose dolphin monitoring program within 5 Marine Protected Areas:

- Cap Corse and Agriate Marine Natural Park (2019-2020), supported by the French Office of Biodiversity (OFB).
- Calanques National Park (2020-2022), funded by the park.
- Camargue Regional Nature Park (2020-2022), Corniche Varoise Natura 2000 site (2021-2023), Cap Ferrat Natura 2000 site (2021-2023), supported by the Provence-Alpes-Côte d'Azur (PACA) Regional Directorate for the Environment, Planning and Housing (DREAL).

MARKER Project (2021-2022) - Evaluation of the pressure of whale-watching activities on cetaceans and the ecological and socio-economic effectiveness of the "High Quality Whale-Watching® " distinction mark in the French Mediterranean. Carried out in partnership with Vertigo Lab and supported by the Direction Interrégionale de la mer Méditerranée within the framework of the measures and monitoring programs of the Marine Strategy Framework Directive (MSFD).

TURSMED (2018-2020) and TURSMED II (2021-2023) programs carried out in partnership with the OFB and aiming to promote the implementation of an integrated and sustainable management of the bottlenose dolphin on the French Mediterranean coast through the development of the network of marine protected areas. The objectives are:

1. Characterize and monitor the bottlenose dolphin population in the French Mediterranean continental shelf
 - Implementation of a harmonized monitoring at the scale of the façade
 - Training of managers
 - Monitoring campaigns of the species
 - Data analysis
2. To initiate new actions, in order to contribute to the evaluation, characterization and achievement of the good ecological status concerning cetaceans and in particular the bottlenose dolphin within the framework of the implementation of the MSFD in the French Mediterranean.
 - Creation of an issue assessment tool

Coordination and monitoring of strandings on the French Mediterranean coast.

MORIGENOS - SLOVENIAN MARINE MAMMAL SOCIETY**Name of the Representative: Tilen Genov**
MORIGENOS
 SLOVENIAN MARINE MAMMAL SOCIETY
Capacity building activities:

Morigenos provides regular support to other researchers from the ACCOBAMS region and elsewhere whenever requested. This consists of advice, practical training and exchange of protocols and know-how. During the past triennium, Morigenos has trained several students from Slovenia and other countries of the ACCOBAMS area, through the implementation of undergraduate and postgraduate research theses, Erasmus exchange programme or other types of internships. A PhD thesis on the population ecology, behaviour and conservation status of bottlenose dolphins in the Gulf of Trieste was produced. Collaborative work with the local MPA resulted in guidelines for monitoring and conservation of mobile species within local MPAs.

Public awareness activities:

Morigenos carried out a range of public awareness activities, including annual summer Dolphin Day in Piran, annual winter Dolphin Night in Ljubljana, annual Dolphin Research Courses in summer, "Adopt a dolphin" campaign, morigenos.org website, social media (Facebook, Twitter, Instagram), mainstream media, popular articles and interviews, and various events and lectures. Morigenos regularly attends various types of events, presenting lectures on the conservation of cetaceans in the northern Adriatic and the Mediterranean, working with universities, secondary and primary schools, kindergartens, other NGOs, MPA managers, divers, etc.

In relation to recreational boat traffic and the associated underwater noise, Morigenos actively promotes a code of conduct for responsible behaviour at sea and around cetaceans, in order to minimise the effects of noise disturbance. For this reason, Morigenos produced and regularly distributes dedicated leaflets for boat owners.

Space and funding for a new education centre in Piran was procured during 2021-2022. The education centre is scheduled to be open for public in early 2023.

Research activities:

Morigenos carries out year-round research and monitoring programme on common bottlenose dolphins in the northern Adriatic Sea (and occasionally other species occurring in the area). This includes studies of population abundance, survival and reproductive ecology via photo-identification and mark-recapture techniques, social structure, interactions with fisheries, habitat use, acoustic behaviour and underwater noise via passive acoustic monitoring, genetic population structure, the effects of chemical pollutants and feeding ecology via biopsy sampling, and behaviour and body condition via the use of unmanned aircraft. Investigations of stranded cetaceans are also carried out.

During the last triennium, annual abundance and survival estimates were produced for the period of 2013-2020, using mark-recapture techniques. A pilot project investigating the spatial and temporal variability of underwater noise in the Gulf of Trieste was carried out. A study utilizing stable isotopes assessed the intra-population variability in diet of dolphins in the area. Collaborative work with a local MPA provided an assessment of the role of the MPA for the conservation of bottlenose dolphins.

Other:

Dialogue and communication with national and local stakeholders were developed and/or maintained. This includes the Ministry of Environment and Spatial Planning, Ministry of Agriculture, Forestry and Food, Institute for Water of the Republic of Slovenia, Institute of Nature Conservation of the Republic of Slovenia, municipalities along the Slovenian coast, various universities and research institutes, local museums, local fishermen and the local community.

Morigenos actively participated at various key activities of ACCOBAMS, including the meetings of the Scientific Committee, the development of species Conservation and Management Plans for bottlenose and common dolphins, workshops on Cetacean Critical Habitat and genetics, etc.

OCEANCARE

Name of the Representative: Nicolas Entrup, Director International Relations



The report is accompanied by two additional files. 1) a selection of OceanCare's activities contributing to the programme of collaboration with the permanent Secretariat during the 2020-2022 triennium, providing information about the support provided towards the involvement in the implementation of ACCOBAMS Programme of work, as well as activities on communication and awareness. 2) an overview about research and conservation projects funded and/or co-funded by OceanCare within the triennium to support researchers and partners towards the joint objectives. With an overall project support of close to 800.000, - CHF (785.000.- EUR), excluding expenditure by OceanCare staff itself, conservation efforts within the Agreement area mark a priority for the organization. The information provided within this template is a brief general summary about the more detailed information provided within the two documents referenced.

Capacity building activities:

By providing significant support towards researchers and conservation organisations, institutions and individuals in numerous Range States (incl. Bulgaria, Greece, Italy, Slovenia, Spain) OceanCare contributes significantly also to capacity building initiatives. The activities by supported partners, as well as OceanCare itself, range from facilitating and supporting workshops addressing the impacts of ocean noise and plastic pollution and interaction of dolphins with fisheries, supporting stakeholder participation in conservation processes, including the involvement in the development of conservation management plans by established MPAs, exposing implementation deficits, as well as providing sound science-based information to stakeholders, decision-makers and the private sector. Most recently work streams have been intensified together with other partner organisations, such as IFAW, Pelagos Cetacean Research Institute and WWF Greece in facilitating a dialogue with the shipping sector promoting measures to reduce the risk of collisions between vessels and large cetacean species.

Public awareness activities:

OceanCare is regularly communicating via all its existing communication tools, including its bilingual website, social media channels, media communication, briefings towards stakeholders and decision makers about the status of cetaceans in the Mediterranean and Black Seas, the threats they face, as well as initiatives and solutions. Furthermore, numerous publications, including peer reviewed papers, reports and articles (incl. for FINS) have been released by the organisation, as well as partner organisations funded and co-funded by OceanCare. To mention a few: OceanCare (2021) [Under Pressure: The need to protect whales and dolphins in European waters; and](#) OceanCare (2021). [Quiet Waters for Whales and Dolphins: the one-time opportunity to avoid, reduce and mitigate noise-generating activities in the Mediterranean Cetacean Migration Corridor](#) [in English & Spanish]. Another report in collaboration with SINAY and the ACCOBAMS Secretariat is in progress and shall be finalised prior to the MOP8. OceanCare's advocacy work within this triennium included a focus on promoting the provisions adopted in ACCOBAMS Resolutions, in particular 7.12 Ship Strikes, 7.13 Anthropogenic Noise, 7.15 Marine Litter, as well as 4.15 Marine Protected Areas of Importance for Cetacean Conservation.

Research activities:

Field research funded and co-funded by OceanCare included a.) investigating the status and distribution of dolphins in the Adriatic Sea, b) the monitoring of cetaceans in the Inner Ionian Sea Archipelago and the Gulf of Ambracia, c) field work on sperm whales and beaked whales along the Hellenic Trench, incl. sample and data analysis and d) documenting the distribution and abundance of cetaceans in Bulgarian waters, including the establishment of a database with population trends. It furthermore covers work studying the interaction of bottlenose dolphins with trawlers and consequently potential behavioral adaptations, as well as overlapping of dolphin habitat with specific fisheries. An overview about the range of partners and work funded can be found in Attachment 2. Results from such research activities did also contribute to the IUCN Red List assessment processes on several species.

OceanCare is proud to report the completion of a milestone-pilot-project which localizes sperm whales in real-time and make information available to ship captains. Between 2019 and 2021 the development of “SAvE Whales” (System for the Avoidance of ship-strikes with Endangered Whales) led by Greek sperm whale expert Dr Alexandros Frantzis (Pelagos Cetacean Research Institute) together with Dr Emmanuel Skarsoulis from the Foundation for Research and Technology Hellas (FORTH), as well as Centro de Investigação Tecnológica do Algarve, Green2Sustain and Marine Traffic was completed. Sperm whales were detected and localized by SAvE Whales with high precision and all tests during the 3-year pilot phase were successful. Results are going to be published in a scientific journal undergoing peer-review process in spring 2022. OceanCare is going to make the information and mitigation tool available to the Greek authorities as well as other Range States for being employed in regions where re-routing is not an option and in complementary support to speed reduction measures to optimize the risk reduction of collisions with endangered sperm whales.

Other:

The following publications have been authored, co-authored or been enabled through OceanCare’s support:

Scientific Publications 2020

- **Bearzi, G.:** Marine biology on a violated planet: from science to conscience. *Ethics in Science and Environmental Politics*, 20, 1 – 13, 2020.
- **Bearzi, G., Bonizzoni, S., Riley, M. A., Santostasi, N. L.:** Bottlenose dolphins in the north-western Adriatic Sea: Abundance and management implications. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 2020.
- **Bearzi, G., Bonizzoni, S., & Santostasi, N. L.:** *Delphinus delphis* (Gulf of Corinth subpopulation). The IUCN Red List of Threatened Species, 2020.
- **Bearzi, G., Genov, T., Natoli, A., Gonzalvo, J., Pierce, G. J.:** Common dolphin *Delphinus delphis* (inner Mediterranean subpopulation). The IUCN Red List of Threatened Species, 2020.
- **Bearzi, G., Bonizzoni, S., Santostasi, N. L.:** Striped dolphin *Stenella coeruleoalba* (Gulf of Corinth subpopulation). The IUCN Red List of Threatened Species, 2020.
- **Bonizzoni, S., Furey, N. B., & Bearzi, G.:** Bottlenose dolphins (*Tursiops 35runcates*) in the northwestern Adriatic Sea: Spatial distribution and effects of trawling. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 2020.
- **Claro, B., Pérez-Jorge, S., & Frey, S.:** Seafloor geomorphic features as an alternative approach into modelling the distribution of cetaceans. *Ecological Informatics*, 58, 101 092, 2020.
- **Risch, D., Calderan, S., Leaper, R., Weilgart, L., & Werner, S.:** Current Knowledge Already Justifies Underwater Noise Reduction. *Trends in Ecology & Evolution*, 2020.
- **Santostasi, N. L., Ciucci, P., Bearzi, G., Bonizzoni, S., & Gimenez, O.:** Assessing the dynamics of hybridization through a matrix modelling approach. *Ecological Modelling*, 431, 109 120, 2020.

Further Publications by partners and supported by OceanCare in 2020

- **Borrell, A., Vighi, M., Genov, T., Giovos, I., & Gonzalvo, J.:** Feeding ecology of the highly threatened common bottlenose dolphin of the Gulf of Ambracia, Greece, through stable isotope analysis. *Marine Mammal Science*, 2020.
- **Braulik, G. T., Jefferson, T. A., Bearzi, G.:** Common dolphin *Delphinus delphis* (global population). The IUCN Red List of Threatened Species, 2020.
- **Foskolos, I., Gkikopoulou, K. C., & Frantzis, A.:** Current State of Knowledge and Conservation Perspectives on the Cetaceans of the Aegean Sea. *The Handbook of Environmental Chemistry*, 2020.
- **Foskolos, I., Koutouzi, N., Polychronidis, L., Alexiadou, P., & Frantzis, A.:** A taste for squid: the diet of sperm whales stranded in Greece, Eastern Mediterranean. *Deep Sea Research Part I: Oceanographic Research Papers*, 155, 103 164, 2020.
- **La Manna, G., Rako-Gospić, N., Sarà, G., Gatti, F., Bonizzoni, S., & Ceccherelli, G.:** Whistle variation in Mediterranean common bottlenose dolphin: The role of geographical, anthropogenic, social, and behavioral factors. *Ecology and evolution*, 10(4), 1971–1987, 2020.
- **Saavedra, C., Petitguyot, M., Bearzi, G., Pierce, G. J.:** Common dolphin, *Delphinus delphis* (Linnaeus 1758). In C. R. Weir, P. G. H. Evans, M. H. Easmussen (eds.), *Handbook of the Mammals of Europe: Cetacea*. Springer, Heidelberg. In Press, 2020.
- **Popov, D. V., Meshkova, G. D., Hristova, P. D., Miteva, A. N., Ilieva, T. A., & Dimitrov, H. A.:** Line Transect Surveys of Abundance and Density of Cetaceans in the Marine Area of the Bulgarian Natura 2000 BG0001001 Ropotamo Site of Community Importance, Black Sea, 2020.
- **Popov, D. V., Meshkova, G. D., Hristova, P. D., Miteva, A. N., Ilieva, T. A., & Dimitrov, H. A.:** Pilot Line- transect Surveys of Cetaceans in a Bulgarian Marine Protected Area: BG0001007 Strandzha Site of Community Importance, 2020.

Scientific and other relevant Publications and Reports 2021:

- **Bearzi, G.:** Opinion Piece: On the Conservation of European Cetaceans and Life at Sea, in: Nunny, L. (ed.): *Under pressure: the need to protect whales and dolphins in European waters*. A report by OceanCare, 2021.
- **Bravo, C., Entrup, N., Sagarminaga, R.:** Quiet waters for Whales and Dolphins: the one-time opportunity to avoid, reduce and mitigate noise-generating activities in the Mediterranean Cetacean Migration Corridor. An OceanCare report, 2021.
- **Frey, S.:** Marine Plastic Pollution – Sources, Sinks and Impacts on Cetaceans, in: Nunny, L. (ed.): *Under pressure: the need to protect whales and dolphins in European waters*. A report by OceanCare, 2021.
- **Genov, T.:** The Impacts of Chemical Pollutants on Cetaceans in Europe, in: Nunny, L. (ed.): *Under pressure: the need to protect whales and dolphins in European waters*. A report by OceanCare, 2021.
- **Genov, T. & Železnik, J.:** Final report on the implementation of ecological monitoring of mobile species in Landscape Park Strunjan, Slovenia. Report for the Landscape Park Strunjan in the framework of the Interreg project MPA Networks, 2021.
- **Genov, T. & Železnik, J.:** Guidelines for the monitoring and management of mobile species in Landscape Park Strunjan. Study for the Landscape Park Strunjan in the framework of the Interreg project MPA Networks, 2021.
- **Genov, T., Železnik, J., Palmer, K.J., Žlavs, N.:** Final report on pilot monitoring to evaluate the effects of underwater noise from shipping and recreational boat traffic on marine mammals in Slovenian waters. Report to the Institute for Water of the Republic of Slovenia, 2021.
- **Notarbartolo di Sciarra, G. & Nunny, L.:** Overview of Cetacean Species in European Waters (including Red List Status), in: Nunny, L. (ed.): *Under pressure: the need to protect whales and dolphins in European waters*. A report by OceanCare, 2021.
- **Nunny, L. (ed.):** *Under Pressure: The need to protect whales and dolphins in European waters*. An OceanCare report, 2021.

- **Nunny, L. & Simmonds, M.P.:** Climate Change and Ocean Acidification – A Looming Crisis for Europe’s Cetaceans, in: Nunny, L. (ed.): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021.
- **OceanCare & General Fisheries Commission for the Mediterranean (GFCM):** Study on the potential effects of underwater noise on demersal fisheries in the fisheries restricted area of the Jabuka/Pomo Pit in the Adriatic Sea. Study presented to the Contracting Parties of the GFCM, November 2021.
- **Popov, K., Mihaylov, K., Delov, V., Zaharieva, Z., Popov, D., Dimov, P.:** National Action Plan for the conservation of cetaceans in Bulgaria. Action Plan submitted to the Ministry of Environment and Water of Bulgaria, 2021.
- **Simmonds, M.P., Entrup, N., Weilgart, L.:** The Threat Posed by Ocean Noise Pollution to Europe’s Cetaceans, in: Nunny, L. (ed.): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021.
- **Simmonds, M.P., McLellan, F., Entrup, N., Nunny, L.:** Whaling in Europe: An Ongoing Welfare and Conservation Concern, in: Nunny, L. (ed.): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021.

Further Publications by partners and supported by OceanCare in 2021

- **Andres, C., Cardona, L., Gonzalvo, J.:** Common bottlenose dolphin (*Tursiops truncatus*) interaction with fish farms in the Gulf of Ambracia, western Greece. Aquatic Conservation: Marine and Freshwater Ecosystems 31 (8): 2229-2240, 2021.
- **Bearzi, G.:** Marine Biology on a violated planet: from science to conscience, in: Bearzi, G., Stergiou, K.I., Macer, D. (eds.): Marine Biology in a World of Wounds. Theme Section in Ethics in Science and Environmental Politics 20: 1-13, 2021.
- **Bearzi, G., Bonizzoni, S., Riley, M.A., Santostasi, N.L.:** Bottlenose dolphins in the north-western Adriatic Sea: Abundance and management implications. Aquatic Conservation: Marine and Freshwater Ecosystems 31: 651-664, 2021.
- **Bearzi, G. & Genov, T.:** Imperilled common dolphins of the Mediterranean Sea, in: DellaSala, D., Goldstein, M., Costello, M.J. (eds.): Imperilled: The Encyclopaedia of Conservation. Elsevier, Amsterdam, 2021.
- **Bearzi, G. & Reeves, R.R.:** Food for Thought: Shifting baselines of cetacean conservation in Europe. ICES Journal of Marine Science, fsab137, 2021.
- **Bonizzoni, S., Furey, N.B., Bearzi, G.:** Bottlenose dolphins (*Tursiops truncatus*) in the north-western Adriatic Sea: Spatial distribution and effects of trawling. Aquatic Conservation: Marine and Freshwater Ecosystems 31: 635-650, 2021.
- **Borrell, A., Vighi, M., Genov, T., Giovos, I., Gonzalvo, J.:** Feeding ecology of the highly threatened common bottlenose dolphin of the Gulf of Ambracia, Greece, through stable isotope analysis. Marine Mammal Science 37: 98-110, 2021.
- **Charitou, A., Aga-Spyridopoulou, R.N., Mylona, Z., Beck, R., McLellan, F., Addamo, A.M.:** Investigating the knowledge and attitude of the Greek public towards marine plastic pollution and the EU Single-Use Plastics Directive. Marine Pollution Bulletin 166: 112182, 2021.
- **Dombrovskaya A.A., Filatova O.A., Ivkovich T.V.:** Demographic parameters of families of fish-eating killer whales (*Orcinus orca*) in Avacha Gulf. Abstract to the 11th International Conference on Marine mammals of the Holarctic, virtual event, March 2021.
- **Entrup, N. & Muller, J.:** Progressing prevention, mitigation and reduction of anthropogenic noise. Poster presentation at the 5th Conference on the Conservation of Cetaceans in South Mediterranean Countries, virtual event, April 2021.
- **Frantzis, A.:** Nomadic giants off the Greek coasts: will we allow them to survive? Presentation at the Environmental Challenges: Pollution and Ecology Workshop organized by FORTH and the Stavros Niarchos Foundation, virtual event, November 2021.

- **Genov, T., Kotnjek, P., Centrih, T.:** Occurrence of common dolphins (*Delphinus delphis*) in the Gulf of Trieste and the northern Adriatic Sea. *Aquatic Conservation: Marine and Freshwater Ecosystems* 31: 69-75, 2021.
- **Guzeev, M.A., Danishevskaja, A.Y., Ivkovich, T.V., Hoyt, E.:** Fish-eating killer whales (*Orcinus orca*) increase vocal activity after playback of biphonic discrete calls of their dialect. Abstract to the 11th International Conference on Marine mammals of the Holarctic, virtual event, March 2021.
- **Nelms, S., Easman, E., Anderson, N., Berg, M., Coates, S., Crosby, A., et al.:** The role of citizen science in addressing plastic pollution: Challenges and opportunities. *Environmental Science and Policy* 128: 14-23, 2021.
- **Nunny, L.:** A brief overview of solitary-social dolphins. Presentation at the Out of Habitat Workshop, virtual event, September 2021.
- **Petitguyot, M.A.C., Bearzi, G., Pierce, G.J.:** Historical records reveal the magnitude of dolphin killings in the Mediterranean and Northeast Atlantic. Abstract to the 24th Biennial Conference of the Society for Marine Mammalogy, Palm Beach, USA, December 2021.
- **Saavedra, C., Petitguyot, M., Bearzi, G., Pierce, G.J.:** Common dolphin, *Delphinus delphis* (Linnaeus 1758), in: Weir, C.R., Evans, P.G.H., Rasmussen, M.H. (eds.): *Handbook of the Mammals of Europe: Cetacea*, *in press*. Springer, Heidelberg, 2021.

Annex 1: [ACCOBAMS Programme of Collaboration with the Secretariat 2020-2022](#)

Annex 2: [Field Projects in ACCOBAMS Area supported by OceanCare 2020-2022](#)

Annex 1: ACCOBAMS Programme of Collaboration with the Secretariat 2020-2022

| CONSERVATION ACTIONS (CA) | | | | | |
|--|----------|--|---|--|---|
| CA1 | | IMPROVE KNOWLEDGE ABOUT THE STATUS OF CETACEANS | | | |
| CA 1 a | | Cetacean population estimates and distribution | | | |
| Expected outcomes | | Improved knowledge of cetacean populations in the ACCOBAMS Area Global distribution and abundance of cetaceans in the Mediterranean Sea and Black Seas established, based on results of surveys | | | |
| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
| Interpret and disseminate results / subsequent recommendations of the ASI in the Mediterranean and Black Seas | Core | Scientific Committee Secretariat Parties, Non-Party Range States Partners, SRCUs | <ul style="list-style-type: none"> Organizing workshops dedicated to ASI data analysis/interpretation (CB) Publishing a report on the ASI results Disseminating the ASI results and experience in relevant regional/international fora | | |
| Support long-term monitoring in the ACCOBAMS Area using the ASI framework (methodology, network, funding mechanism...) | High | Secretariat, Parties, Non-Party Range States, Scientific Committee | <ul style="list-style-type: none"> Organizing coordination meetings at the sub-regional level Developing a strategy to fund ASI on the long-term | Field research co-funded by OceanCare included a.) investigating the status and distribution of dolphins in the Adriatic Sea, b) the monitoring of cetaceans in the Inner Ionian Sea Archipelago and the Gulf of Ambracia, c) field work on sperm whales and beaked whales along the Hellenic Trench, incl. sample and data analysis and d) documenting the distribution | |
| network, funding mechanism...) | | Partners, SRCUs | <ul style="list-style-type: none"> Supporting the development of specific collaborations among scientific entities Supporting implementation of sub regional surveys | and abundance of cetaceans in Bulgarian waters, including the establishment of a database with population trends | |

| CA 1 c | | Monitoring cetacean's status | | | |
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| Expected outcomes | | <p>IUCN threat status of cetaceans in the ACCOBAMS area is assessed</p> <p>ACCOBAMS Status report on the State of Conservation of Cetaceans is updated and made available on IUCN and ACCOBAMS websites</p> <p>Regional conservation plan for cetaceans in the Black Sea is revised and implemented at the national level</p> <p>Conservation management plans for cetacean species are developed and implemented</p> <p>National Action Plans for cetaceans are developed and implemented</p> | | | |
| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
| Contribute to IUCN threat status assessment of cetaceans in the ACCOBAMS area and update it as relevant | Core | Scientific Committee Secretariat, Parties, Non-Party Range States, Partners, SRCUs | <ul style="list-style-type: none"> • Undertaking species assessments • Organising joint ACCOBAMS--IUCN experts' workshop | Co-funded research by OceanCare contributed to the assessments in particular of the common dolphin in the Gulf of Corinth, the bottlenose dolphin in the Gulf of Ambracia, sperm whales in the Mediterranean Sea, cetaceans in the Black Sea, as well as other cetacean species and populations within the Agreement Area. | Notarbartolo di Sciara, G. & Nunny, L.: Overview of Cetacean Species in European Waters (including Red List Status) , in: Nunny, L. (ed.): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021. |
| Facilitate the Development/ revision/ implementation of National or Regional Action Plans for cetaceans | High | Parties Non-Party Range States, Secretariat, SRCUs Scientific Committee, Partners | <ul style="list-style-type: none"> • Supporting the revision / development of two National Action Plans for cetaceans in collaboration with SRCUs and national authorities (Algeria already identified) | OceanCare envisages to work closely with the government of Spain, as well as other Range States to develop appropriate cetacean conservation and protection measures, in particular for protected areas but not exclusively. | |

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| CA 1 d | Functional stranding networks and responses to emergency situation |
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| Expected outcomes | Official National Stranding networks are established and operating Information on stranding events regularly exchanged among national networks |
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| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
|---|----------|--|---|---|---|
| Set up /Reinforce official national stranding networks (with all national institutions concerned) as appropriate, and encourage collaborations among national networks of Parties | Core | Parties, Scientific Committee, Secretariat, Non-Party Range States, Partners, SRCUs | <ul style="list-style-type: none"> • Preparing a study on legal/institutional status of National stranding networks in order to assist experts in the establishment of official national stranding network when relevant • Organizing trainings on necropsies, live strandings and response to emergency situation in the ACCOBAMS area following the best practices on causes of death including marine litters, and on the use of relevant databases (CB) • Entering relevant national data into relevant databases, such as MEDACES • Promoting the use of a database of | | Mazzariol, S.: Cetacean Strandings, Diseases and Mortalities in European Waters , in: Nunny, L. (ed): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021 |

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| CA2 | REDUCE HUMAN PRESSURES ON CETACEANS, IN PARTICULARLY THOSE RELATED TO BYCATCH, HABITAT LOSS AND DEGRADATION (POLLUTION) |
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| CA 2 a | Interactions with fisheries / aquaculture |
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| Expected outcomes | Impacts of cetaceans' bycatch and depredation are assessed and mitigation measures are tested Regional bycatch/depredation strategy is developed Ecotourism activities (whale watching and pescatourism) are promoted as an alternative income source to fishermen impacted by depredation |
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| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
|--|----------|---|---|---|---|
| Assess / Monitor the impacts of interactions with fisheries/ aquaculture (bycatch, depredation and prey depletion) and propose alternative best practices measures and / or technics | Core | Parties Scientific Committee, through the JBWG Secretariat, Non-Party Range States, Partners, SRCUs | <ul style="list-style-type: none"> • Replicating projects on interactions with fisheries • Implementing on-board observers programme and port questionnaires, and testing mitigation measures in the countries supported by the MAVA funded projects • Assessing /updating the extent of interactions with fisheries/ aquaculture in other countries, including through the use of stranding data • Collaborating with relevant entities, in particular with GFCM and IWC BMI | Research and conservation work funded by OceanCare was carried out in the Adriatic Sea assessing the potential threats to dolphins due to fisheries-interactions, including with trawlers. Work co-funded addressed a) the risk of illegal, unreported and unregulated (IUU) fishing in Spanish waters and b) the mapping of spatial overlap between dolphins and bottom-set fishing gear in the Northern Adriatic. | Öztürk, A.A.: Bycatch: A Serious Threat for Cetaceans in Europe , in: Nunny, L. (ed): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021 |

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| CA 2 b | Anthropogenic underwater noise |
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| Expected outcomes | Core anthropogenic activities generating underwater noise are monitored in the ACCOBAMS Area Mitigation measures for anthropogenic activities generating underwater noise are used |
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| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
|--|----------|--|---|--|---|
| Encourage the monitoring of anthropogenic activities generating underwater noise | Core | Scientific Committee including through the JNWG Secretariat, Parties Non-Party Range States, Partners, SRCUs QM2 partners | <ul style="list-style-type: none"> • Organizing trainings for national entities on noise monitoring (CB), including analyses of PAM collected data in some identified priority areas • Taking into consideration work achieved and advices provided by the JNWG • Revising/completing impulsive noise hotspots maps of the ACCOBAMS area using Big Data Platform • Supporting monitoring programmes of impulsive noise impact indicator in particular by managing the regional impulsive noise register, proposing methodology to establish threshold values and implementing pilot studies | <p>Following the joint workshop between FAO/GFCM and OceanCare on “Anthropogenic Underwater Noise and impacts on fish, invertebrates and fish resources”, which was attended by 23 participants, including experts and representatives from organisations and institutes of Mediterranean countries, including the Chairperson of the GFCM/SAC and representatives of the EU Commission/DG Mare, the FAO Secretariat and the GFCM Secretariat, a joint GFCM/OceanCare study addressing the potential socioeconomic impact of ocean noise on fisheries in the Adriatic Sea was completed.</p> <p>++ OceanCare experts contribute to the work of the JNWG in their role as individual experts. ++ Contributing to the implementation of measures, including monitoring activities, by the MSFD OceanCare experts co-authored the publication “Risch, D., Belin, A., Entrup, N., Leaper, R., Panella, E., Taylor, B., Weilgart, L., Werner, S., Ziebarth, N., 2020. Underwater Noise – The neglected threat to marine life. 14 pp” ++ Active participation in the work by the European Union to implement the MSFD, contributing to TG Noise, the Quiet Seas project and continued input and review of Programmes of Measures by EU Member States</p> | |

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| | | | <ul style="list-style-type: none"> Disseminating deliverables of the QuietMed and QuietMed2 projects on guidance for underwater noise monitoring and assessment, Supporting the development of projects to monitor continuous noise’. Revising and updating the ACCOBAMS Guidelines on underwater noise Developing cooperation on underwater noise issue with other international Organizations | <p>++ OceanCare in collaboration with SINAY and the ACCOBAMS Secretariat prepared the draft for the “Second Hotspots report: Updated overview of the noise hotspots in the ACCOBAMS Agreement Area” [the report is still in progress]</p> | |
| Encourage the use of mitigation measures for anthropogenic activities generating underwater noise | Core | <p>Scientific Committee including through the JNWG Secretariat, Parties Non-Party Range States, Partners, SRCUs</p> | <ul style="list-style-type: none"> Promoting the ACCOBAMS Highly qualified MMO/PAM operators’ certificate Granting the status of ACCOBAMS HQMMO Partners to entities for the implementation of the Highly qualified MMO/PAM operators’ certificate Revising and updating the ACCOBAMS “Guide for Parties to use mitigation measures “ Developing cooperation on underwater noise | <p>November 2021 OceanCare published the report “Quiet Waters for whales and dolphins” [in English & Spanish] providing a detailed proposal to avoid, reduce and mitigate noise-generating activities in the Mediterranean Cetacean Migration Corridor in Spain. ++ OceanCare expert, Dr. Lindy Weilgart, prepared the Draft Report “Best Available Technology (BAT) and Best Environmental Practice (BEP) for Three Noise Sources: Shipping, Seismic Airgun Surveys, and Pile Driving” which has been subject to UNEP/CMS Decision 13.59/60 ++ Preparing and presenting the poster “Progressing prevention, mitigation and reduction of anthropogenic noise” at the 5th Conference on</p> | <p>OceanCare communicates regularly raising concerns over impulsive and continuous noise impacts caused to cetaceans in the Agreement Area urging governments to implement and apply the ACCOBAMS Noise Guidelines as well as CMS Noise EIA Guidelines. ++ Simmonds, M.P., Entrup, N., Weilgart, L.: The Threat Posed by Ocean Noise Pollution to Europe’s Cetaceans, in: Nunny, L. (ed.): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021.</p> |
| | | | <p>issues with other International Organizations</p> | <p>Cetacean Conservation in South Mediterranean Countries, April 2021 ++ Close collaboration with ACCOBAMS Secretariat, as well as programmes under the Barcelona Convention & UNEP/MAP, the CMS and within the MSFD implementation process to reduce ocean noise. ++</p> | |

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| CA 2 c | Ship strikes |
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| Expected outcomes | Occurrence of ship strikes in high risk areas is reduced |
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| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
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| Monitor / assess high-risk areas for ship strikes (CCH) in the Mediterranean Sea | High | Scientific Committee Secretariat, Parties, Non-Party Range States, Partners, SRCUs | <ul style="list-style-type: none"> • Encouraging the entry of ship strikes data in relevant databases • Developing a protocol for investigating and documenting ship strikes injuries and mortalities • Identifying high risk areas for ship strikes (CCH) • Developing cooperation on ships strike issue with other International Organizations, such IWC, EMSA (EU) / REMPEC / IMO and contributing in any other relevant initiatives, projects and workshops in the ACCOBAMS Area | <p>As part of our efforts to support on-the-ground research projects, OceanCare is funding the efforts by Dr. Alexandros Frantzis from the Pelagos Cetacean Research Institute to monitor and assess the high-risk areas for ship strikes in the eastern Mediterranean (Hellenic Trench). This research informs efforts to reducing risk of ship strikes/cumulative impacts to cetaceans in the Hellenic Trench.</p> <p>++ OceanCare is actively promoting the collaboration between IGOs, including promoting the IUCN-IWC-ACCOBAMS Guidelines to reduce ship strikes in various for a and towards governments.</p> | |
| Promote the use of mitigation measures | High | Secretariat, Scientific Committee | <ul style="list-style-type: none"> • Following up on mitigation measures implemented | OceanCare works within a Coalition together with IFAW, Pelagos Cetacean Research Institute and WWF Greece to promote re-routing of vessel traffic | To raise awareness and support for the sperm whale localization system, OceanCare is communicating on a. what is at risk (sperm whale |

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| | | <p>Parties, Non-Party Range States, Partners, SRCUs</p> | <ul style="list-style-type: none"> • Promoting the use of relevant mitigation tools/measures (CB) • Pursue the development of a “whale safe” certificate | <p>out of core habitats from sperm whales off Crete and the western Peloponnes; In 2022 some shipping companies confirmed to follow the re-routing proposal, including the world’s largest shipping company MSC;</p> <p>++</p> <p>A pilot project developing a real-time localization system alerting ships about the presence of sperm whales has been completed between 2019 and 2021. The successful system is now going to be offered to the Greek government for implementation. The system is a complementary tool to avoid ship collisions with sperm whales in areas where re-routing is not possible</p> <p>++</p> <p>OceanCare encourages Parties to ACCOBAMS and the private sector to promote and engage in the reduction of vessel speed which would reduce ocean noise emissions as well as the risk of collisions with whales. Specific attention is given to the northwestern Mediterranean, including the Pelagos Sanctuary and the Whale Migration Corridor. Support has been provided to facilitate workshops on this matter.</p> | <p>extinction in the eastern Mediterranean) b. the general problem relating to ship collisions and c. promoting the high-tech innovative solution-based approach as complementary measure to avoid collisions.</p> <p>++</p> |
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| CA 2 d | Cetacean watching |
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| Expected outcomes | Cetacean watching activities are properly conducted in the ACCOBAMS Area |
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| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
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| Maximize the chance of detecting potential adverse impacts of whale watching activities on individual cetaceans and on populations | High | Scientific Committee through the WWWG Secretariat, Parties Non-Party Range States, Partners, SRCUs | <ul style="list-style-type: none"> • Gathering information on cetacean watching activities and identifying potential issues in order to identify the hotspots of WW activities in the ACCOBAMS area • Testing the proposed common procedure (data collection system) for whale watching vessels in pilot areas and a variety of operation types (e.g. the Liguro-Provençal Basin, Gibraltar Strait, and south Portugal), in collaboration with relevant projects such as EcoStrim • Revising the Guidelines for | | Hoyt, E.: Whale and Dolphin Watching in Europe , in: Nunny, L. (ed): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021 |

| CA 2 e | | Marine litter | | | |
|--|----------|---|---|--|---|
| Expected outcomes | | The monitoring of marine litter in relation with cetaceans is improved | | | |
| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
| Monitor the impacts of marine litter (ingested marine litter / microplastics / entanglements in ghost nets) on cetaceans | Core | Scientific Committee Secretariat, Parties Non-Party Range States, Partners, SRCUs | <ul style="list-style-type: none"> Supporting the implementation of the standardized necropsy protocol including the assessment of ingested marine litter and entanglement in ghost nets Supporting pilot monitoring activities at the sub regional level through the implementation of the standardized necropsy protocol including the assessment of ingested marine litter and entanglement in ghost nets Encouraging the report in stranding databases of marine litters data collected during necropsies Identifying potential hotspot areas for cetacean entanglement and ingestion of marine litter, including through the assessment of | <p>OceanCare is monitoring the progress made within discussions on MSFD Descriptor 10 on Marine Litter and has provided input as to the progress made during the Review consultation in 2021. Our main concern overall remains the issue of implementation of existing obligations.</p> <p>In this respect, OceanCare is also supporting and collaborating with Seas at Risk in their efforts to ensure that EU Member States implement the EU Single-Use Plastics Directive (SUP).</p> <p>In 2021, OceanCare also contributed to the consultation by the EU Commission on “Microplastics pollution – measures to reduce its impact on the environment” in line with the European Green Deal and the new Circular Economy Action Plan which is committing to tackling microplastic pollution from both intentional and unintentional origins and to take EU wide legal action and develop a comprehensive approach in this regard.</p> <p>OceanCare was involved in the Ad Hoc Open-Ended Expert Group within the process of the United Nations Environment Assembly of UNEP since 2018, promoting a global, legally binding plastics treaty where ACCOBAMS could engage as stakeholder within the intergovernmental</p> | <p>OceanCare is convinced that we need to rethink our approach to plastic. It is not enough to find solutions to the removal of plastics from the ocean. OceanCare therefore engages in environmental education to increase people’s awareness about the impact of every day plastic pollution, advocating for behavioural change.</p> <p>By giving lectures in schools and auditoriums both domestically and abroad, OceanCare wants to create awareness among the young for the fascinating ocean life and for the need to act responsibly in dealing with the colourful world of plastics. Information materials such as flyers, factsheets and infographics are designed to assist teachers in integrating the plastic issue into school education.</p> <p>On a more individual basis, OceanCare has started an I Care movement where people can speak up about plastic pollution and can make an individual pledge to consume less single-use plastic.</p> <p>In respect to education and beach cleanings, OceanCare also supports iSEA in their zero-plastic campaign to raise awareness against plastic debris and microplastics in Greek waters.</p> <p>OceanCare co-funded work in the Balearic Island to raise awareness in schools by education,</p> |

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| | | | <p>entanglements/ingested marine litters during necropsies</p> <ul style="list-style-type: none"> Promoting/ supporting/ liaising with projects, research activities in order to evaluate and assess impact of microplastic on cetaceans using big data platform Collaborating with relevant Organizations (MEDPOL) and projects, in particular Plastic Busters MPAs, Healthy Seas and Black Sea projects | <p>negotiating committee process and play an advisory role as premium authority on cetacean conservation to protect cetaceans from marine plastic pollution and other anthropogenic impacts.</p> | <p>science-based action, innovative solutions and involve the local community to reduce plastic waste.</p> <p>++</p> <p>Frey, S.: Marine Plastic Pollution – Sources, Sinks and Impacts on Cetaceans, in: Nunny, L. (ed.): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021.</p> <p>Charitou, A., Aga-Spyridopoulou, R.N., Mylona, Z., Beck, R., McLellan, F., Addamo, A.M.: Investigating the knowledge and attitude of the Greek public towards marine plastic pollution and the EU Single-Use Plastics Directive. <i>Marine Pollution Bulletin</i> 166: 112182, 2021.</p> |
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CA 2 f

Chemical & biological pollution

Expected outcomes

ACCOBAMS collaborates with relevant Organizations on this issue

| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
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| <p>Liaise with relevant other Organizations, such as IWC, to assess the impact of chemical & biological pollution (such as pathogens, invasive species) on cetaceans</p> | Medium | <p>Scientific Committee Secretariat, Parties Non-Party Range States, Partners, SRCUs</p> | <ul style="list-style-type: none"> Developing a bibliographic review on the impact of chemical pollution on cetaceans Developing Guidelines on the best practices to assess the impact of chemical pollution on cetaceans with a focus on emerging contaminants Developing specific collaboration Participating in relevant Meetings and Side events | | <p>Genov, T.: The Impacts of Chemical Pollutants on Cetaceans in Europe, in: Nunny, L. (ed.): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021.</p> |

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| CA 2 g | Climate change |
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| Expected outcomes | ACCOBAMS cooperates with regional initiatives on climate change, taking into account cetacean conservation |
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| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
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| Contribute to regional initiatives on climate change | Medium | Scientific Committee Secretariat, Parties Non-Party Range States, Partners, SRCUs | <ul style="list-style-type: none"> • Liaising with relevant CMS Working Group • Participating in Meetings and side events | OceanCare is increasing its efforts within the IMO's Marine Environment Protection Committee (MEPC) to raise awareness of the linkages between commercial shipping, fossil fuel consumption and underwater noise. In this respect, we have highlighted that a reduction in speed reduces greenhouse gas emissions, underwater noise and also reduces the risk of collisions with large whale species. | OceanCare engages in communication initiatives to establish the link between fossil fuels – exploration and exploitation – as well as shipping and its impacts on the climate, as well as how to mitigate it. ++ Nunny, L. & Simmonds, M.P.: Climate Change and Ocean Acidification – A Looming Crisis for Europe's Cetaceans , in: Nunny, L. (ed.): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021. |

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| CA3 | ENHANCE EFFECTIVE CONSERVATION OF CETACEANS CRITICAL HABITATS |
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| CA 3 a | Area-based measures for cetacean conservation |
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| Expected outcomes | Cetacean Critical Habitats are updated Implementation of relevant measures are initiated in some pilot Cetacean Critical Habitats |
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| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
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| Regularly update Cetacean Critical Habitats (CCH) including by identifying priority areas for action to mitigate the known threats (bycatch...)/ area-based management measures | Core | Scientific Committee, Secretariat, Parties, Partners, Non-Party Range States, SRCUs | <ul style="list-style-type: none"> Gathering data, in particular through the organization of regional workshops to update CCH, considering the IMMAs and EBSAs process | OceanCare co-funds work undertaking spatial modelling of habitat use and identification of critical habitats to inform potential MPAs in the Northern Adriatic Sea. | |
| Support implementation of relevant measures for adequate management in CCH | Core | Scientific Committee, Secretariat, Parties, Non-Party Range States, Partners, SRCUs | <ul style="list-style-type: none"> Identifying and promoting relevant management measures in pilot CCH, in collaboration with all stakeholders (CB) Collaborating with other Organizations, such as UNEP-MAP/RAC-SPA, BSC, IMO, IWC, and GFCM, in particular through the Strategical Alliance | See note about QuietWaters report under “Anthropogenic Noise”. In addition OceanCare is supporting stakeholder engagement in the process of the establishment of the conservation management plan for the SPAMI – Whale Migration Corridor. | Hoyt, E: Benefits and Pitfalls of MPAs as a Conservation Tool for Cetaceans , in: Nunny, L. (ed): <i>Under pressure: the need to protect whales and dolphins in European waters</i> . A report by OceanCare, 2021 |

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| CA4 | ENHANCE PUBLIC AWARENESS ABOUT CETACEANS |
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| CA 4 a | Information /Communication / Awareness about cetaceans |
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| Expected outcomes | <p>All ACCOBAMS Bodies, national focal/contact points, Partners and other relevant national institutions, Organizations and experts are familiar with activities implemented by or relevant for ACCOBAMS and share information accurately</p> <p>General public and other relevant stakeholders are aware about cetaceans and need for their conservation through activities supported by or linked to ACCOBAMS</p> |
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| Proposed Action(s) | Priority | Action lead by and in cooperation with | Means of implementation | Involvement in the implementation of ACCOBAMS Programme of Work | Activities on communication and awareness |
|---|----------|--|---|---|--|
| Maintain regular information/ communication about ongoing activities, cooperation and funding possibilities, cetacean conservation scientists and experts operating in the region and other relevant information; facilitate communication among cetacean conservation actors of the ACCOBAMS area, in particular in Southern Mediterranean countries | Core | Secretariat, Scientific Committee, Partners, SRCUs, Parties, Non-Party Range States | <ul style="list-style-type: none"> Developing an information/ communication strategy | | |
| | | | <ul style="list-style-type: none"> Organizing a Conference on cetacean conservation in South Mediterranean Countries - CSMC (CB) | See note about poster presentation under "Anthropogenic Noise" | |
| | | | <ul style="list-style-type: none"> Reviewing the current citizen sciences initiatives in the ACCOBAMS area and produce basic guidelines on the use and how to gather information Evaluating the relevance of "Citizen Science" input of | | OceanCare did also contribute multiple articles to editions of FINS during the triennium |

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| <p>Enhance public awareness about cetacean's conservation in the ACCOBAMS area</p> | <p>Core</p> | <p>Secretariat, Parties SRCUs Non-Party Range States Scientific Committee, Partners</p> | <ul style="list-style-type: none"> • Implementing the ACCOBAMS Cetacean Day • Delivering a conservation Awards (ECS, Partners) • Producing Press releases • Posting on social media | <p>OceanCare is frequently and constantly reporting about the need for strict conservation and protection measures for cetaceans in the Agreement area via various communication channels, including website, e-communication, supporter focused communication, media etc. ++</p> <p>In April 2021 OceanCare published the Report "Under Pressure: The need to protect whales and dolphins in European waters". The report was written by leading European researches and experts and includes numerous articles covering cetacean conservation aspects relevant to the Agreement Area, as well as a full set of recommendations to improve conservation action. The respective chapters are included in the relevant sections above.</p> | <p>Bearzi, G.: Opinion Piece: On the Conservation of European Cetaceans and Life at Sea, in: Nunny, L. (ed.): Under pressure: the need to protect whales and dolphins in European waters. A report by OceanCare, 2021. ++</p> |
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Annex 2: Field Projects in ACCOBAMS Area supported by OceanCare 2020-2022

Overview Research and conservation projects and partners in the ACCOBAMS Agreement Area OceanCare supports

| Partner organisation | Project type | Species | Elements supported | Country | Region | Funds CHF 2022 | Funds CHF 2021 | Funds CHF 2020 | Total 2020 - 2022 | Partnering since |
|--------------------------------|-------------------------------|--|---|----------|---------------------------------|----------------|----------------|----------------|-------------------|------------------|
| Alritak | fisheries | Ghost FADs | a) Retrieval of Ghost FADs b) Address the risk of illegal, unreported, and unregulated (IUU) fishing c) Map the core sites of Ghost FAD production d) Rescue of entangled marine life, particularly sea turtles | Spain | Mediterranean Sea | 7 500 | 5 000 | 5 000 | | 2021 |
| Dolphin Biology & Conservation | research and conservation | common dolphins striped dolphins bottlenose dolphins | Investigating the status and distribution of Mediterranean dolphins and assessing potential threats to dolphin populations and fisheries-interactions. | Italy | Adriatic Sea | 81 000 | 81 000 | 81 000 | | 2007 |
| Green Balkans | research and conservation | Cetaceans | a) Document distribution and abundance of cetaceans in Bulgaria's waters b) Establish database with population development and trends | Bulgaria | Black Sea | 7 500 | 5 000 | 5 000 | 17 500 | 2018 |
| IDP (Telhys) | research and conservation | common dolphins striped dolphins bottlenose dolphins monk seals | a) Monitor marine mammal populations in the inner Ionian Sea Archipelago and the Gulf of Ambracia b) Promote local awareness concerning the need to protect marine mammals and their habitat c) Support the conservation of endangered marine mammals in the Inner Ionian Sea Archipelago and Gulf of Ambracia d) Expand surveys to the areas south of Corfu, around the islands of Paxos-AntiPaxos, western Lefkada and the islands of Ithaki and Atoko | Greece | Gulf of Ambracia and Ionian Sea | 11 000 | 11 000 | 11 000 | 33 000 | 2004 |
| iSea | education and beach cleanings | marine plastic debris | Zero plastic campaign to raise awareness against plastic debris and microplastics in Greek waters | Greece | Greek Waters | 5 000 | 5 000 | 10 000 | 20 000 | 2019 |
| Morigenos | research and conservation | bottlenose dolphins | a) Mapping spatial overlap between dolphins and bottom-set fishing gear b) Spatial modelling of habitat use and identification of critical habitats to inform potential MPAs | Slovenia | Adriatic Sea | 5 000 | 5 000 | 9 000 | 19 000 | 2020 |

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|--|-------------------------------|-----------------------|---|--------|------------------|----------------|----------------|----------------|----------------|------|
| Pelagos Cetacean Research Institute | research and conservation | cetaceans | a) research field work on sperm whales and beaked whales along the Hellenic Trench b) research field work on cetaceans generally in Greek Seas c) sample & data analysis d) efforts reducing risk of ship strikes/cumulative impacts to cetaceans in the Hellenic Trench | Greece | Hellenic Trench | 15 000 | 15 000 | 15 000 | 45 000 | 2007 |
| PRCI, FORTH, CINTAL, MT, G2S | conservation | sperm whales | development of a high-tech Save Whale project | Greece | Hellenic Trench | 65 000 | 125 000 | 182 000 | 372 000 | 2019 |
| Save The Med Foundation | education and beach cleanings | marine plastic debris | Dos Manos School Programm to raise awareness in schools by education, science-based action, innovative solutions and community involvement to reduce plastic waste. | Spain | Baleanic Islands | 5 000 | 5 000 | 15 000 | 25 000 | 2017 |
| TOTAL Contributions 2020 - 2022 | | | | | | 202 000 | 257 000 | 333 000 | 792 000 | |

OCEANOMARE DELPHIS ONLUS

Name of the Representative: Barbara Mussi



Capacity building activities:

- Strengthening of the partnership with the MPA “Regno di Nettuno” and establishment of new partnerships with the MPAs “Isole di Ventotene e S. Stefano”, “Punta Campanella” and “La Gaiola”, to create a network of local MPAs engaged in the conservation of cetaceans.
- New research partnerships with [Bottlenose Dolphin Research Institute](#), [Tursiops](#), [Associazione Filicudi Wildlife Conservation](#), [Menkab](#), [Jonian Dolphin Conservation](#), [SeaMe Sardinia](#) were made to share photo-id catalog in the Mediterranean and study sperm whale movements, identifying and modeling the whale critical habitat.
- In the frame of the Ischia Dolphin Project we involved students directly in our field research, and helped students develop their conservation project ideas and concepts offering direct networking and mentoring experiences.
- In the ACCOBAMS network (MMO/PAM WG) we worked to strengthen the collaboration among trainers, review the existing forms, and organize an MMO/PAM online course.
- A fundraising campaign focused on ex IDP volunteers, to support the Ischia Dolphin Project data collection during the Pandemic, was organized.
- As always, since 2016, we did our yearly one-month team building on our research vessel in October to train the new members of the team and test new equipment.

Public awareness activities:

- Realization of a [documentary](#) on our work in Ischia, among dolphins and sperm whales, directed by Davide Demichelis and Alessandro Rocca for the Explorer channel of Sky.
- Celebration of the 30 years of the Ischia Dolphin Project in the beautiful scenery of Villa Arbusto in Lacco Ameno (Island of Ischia): we presented a [documentary](#) produced with our archive images by Discovercampania to talk about our project, the results, and the goals achieved.
- [Map For Future](#), Protect marine life and environments. Conference on our study and research on cetaceans in the Gulf of Naples.
- [Conferenza sull'etologia applicata al Turismo e alla didattica](#), Sustainable whale watching: how to observe cetaceans ethically.
- [A Scuola per mare](#), Lectures on cetaceans species in the MPA Regno di Nettuno, in the frame of a national project that aims to combat educational poverty.
- [Orsa Minore](#), Cetaceans of the Mediterranean. Whales and dolphins to protect. Conference on cetaceans' threats in the Mediterranean, in collaboration with Amici di Riccardo and Orsa Minore NGOs.
- [Aperipelagos](#) The importance of citizen science for conservation, in collaboration with WWF Italia.
- ArrestaleReste (mapping, recovery, and recycling of nets for mussel farming) in the frame of [Coordinamento Tutela Mare](#).
- Action on the problem of sewage discharges in the areas of special conservation IT8030041 in the frame of Coordinamento Tutela Mare.
- Managing our social media accounts (FB, LinkedIn, Instagram, YouTube).

Research activities:

- Regular developing and reporting of the Ischia Dolphin Project (since 1991).
- Publication of the [Special Issue: Conservation and Research Status of Mediterranean Delphinus delphis](#). Pace DS, Mussi B, Vella JG, Vella A, editors. Aquatic Conserv Mar Freshw Ecosyst: 2021; 31(S1): 1-166.

Our articles included in the SI:

- Pace DS, et al. [Facts and outcomes of the Mediterranean short-beaked common dolphin \(Delphinus delphis\) workshop](#). Aquatic Conserv: 2021; 31(S1): 5-7.
- Azzolin M, et al. [Whistle variability of the Mediterranean short beak common dolphin](#). Aquatic Conserv: 2021; 31(S1): 36-50.
- Papale E, et al. [The higher, the closer, the better? Influence of sampling frequency and distance on the acoustic properties of short-beaked common dolphins burst pulses in the Mediterranean Sea](#). Aquatic Conserv: 2021; 31(S1): 51-60.
- Mussi B, et al. [The decline of short-beaked common dolphin \(Delphinus delphis\) in the waters off the island of Ischia \(Gulf of Naples, Italy\)](#). Aquatic Conserv: 2021; 31(S1): 87-100.
- Vella A, et al. [The conservation of the endangered Mediterranean common dolphin \(Delphinus delphis\): Current knowledge and research priorities](#). Aquatic Conserv: 2021; 31(S1): 110– 136.

33rd European Cetacean Society Conference:

- Staffelli A, Mussi B, Russo GF. 2022. Bottlenose dolphin interactions with fishery in the Phlegraean Islands (Gulf of Naples, Italy).
- Iacono AG, Mussi B, Lucidi P. 2022. Core habitats of bottlenose dolphins in the MPA Regno di Nettuno, Gulf of Naples, Italy.
- Stanzani L, Mussi B, Paraboschi M, Gubbiotti M. 2022. Bottlenose dolphin calving and nursery area in the waters of Rome.

Other:

- Interdisciplinary partnership with the University of Nottingham, UK, Schools of Computer Science, Mathematical Science, and Psychology: development of advanced deep learning approaches to automate the identification of single sperm whales, combining this with picture geolocation data to track the interactions between subjects and the whale pods evolution over time. Techniques include network theories, Bayesian computational methods, and image recognition techniques.
- Data loading on the Intercet platform within the project InterMed: 2004-2019, photo-id selected images for sperm whales (2262 photos, 97 individuals), Risso's dolphins (954 photos, 46 individuals), and bottlenose dolphins (877 photos, 193 individuals).
- In the framework of the Life DELFI project, cetacean monitoring in the waters of the MPA Punta Campanella and the island of Capri.
- 2020-2021 winter monitoring of cetaceans in the waters of the MPA Regno di Nettuno.
- 2021-2022 winter monitoring of cetaceans in the waters of the MPA Regno di Nettuno, the MPA Isole di Ventotene e S. Stefano. The monitoring site embraces also the IUCN Important Marine Mammal Area "Waters of Ischia and Ventotene", which also contains the area D of the MPA Regno di Nettuno, and extends beyond the Canyon of Cuma, to the waters of the MPA of Ventotene.
- Supervision of two master thesis on the acoustic of the bottlenose dolphin; two bachelor theses on bottlenose dolphin distribution, habitat use, and interaction with fishery; five internships on bottlenose dolphin photo-identification analysis.

TETHYS RESEARCH INSTITUTE

Name of the Representative: Joan Gonzalvo



Capacity building activities:

Capacity building and education activities including lectures and direct involvement in fieldwork and data analysis have benefited a large number of students, researchers and participants in the citizen-science programmes conducted by Tethys' long-term projects in Italy and Greece (see below).

Between 12-17 July 2021, Torre Guaceto MPA (Italy) personnel attended a one-week training course on dolphin monitoring techniques in Greece. The trainees conducted daily surveys onboard the IDP research boat, working side-by-side with our researchers and contributed actively to field data collection. During dolphin sighting, trainees got familiar with the photographic equipment and received training on how is best to conduct dolphin photo-identification and conducted basic dolphin behavioural data collection.

In March 2019, Tethys signed a Protocol Agreement with the Italian Coast Guard; together they conducted several activities in Italy, aimed at raising awareness on the conservation of the Mediterranean among the general public, especially boaters. Since 2019, Tethys has held a series of lectures on the ecology, threats and conservation of Mediterranean cetaceans on a yearly basis to officers of the Italian Coast Guard of different grades as part of their professional training courses.

In addition, training courses were held for primary and secondary school teachers living in the area of the Pelagos Sanctuary.

Public awareness activities:

A fundamental aspect of Tethys' contribution to marine conservation is public awareness, achieved through the institute's presence on media as well as through the involvement, as research volunteers, of thousands of people from across the world in its citizen science programmes: Cetacean Sanctuary Research (CSR) and Ionian Dolphin Project (IDP). Tethys manages a website (<http://tethys.org>) as well as Facebook and Instagram accounts to disseminate relevant information related to marine mammal research and conservation.

Since 2012 the IDP has a website (<http://ioniandolphinproject.org>) with basic information about the project activities, which was created with the aim of increasing interest about the conservation of cetaceans of the Ionian Sea, by encouraging people to report their sightings of cetaceans, through a user-friendly on-line form. So far, we have received 350+ reports. The BE DOLPHIN SMART initiative provides basic guidelines on how to behave when encountering cetaceans at sea. This website has been fully re-designed and updated in 2021. Significant information on the Mediterranean monk seal has also been added.

A public awareness project, called "Digital Whales", was carried out at the Civic Aquarium of Milan from September 2019 to December 2020. Six flagship species were on life-size display in augmented-reality, together with around 150 "nuggets" of information and stories in the form of short multimedia presentations and additional downloadable material.

Tethys has also implemented an educational project, "Pelagos Mission" for primary and secondary school on Mediterranean cetaceans, with a focus on the Pelagos Sanctuary, creating a dedicated interactive web platform.

Research activities:

The IDP (since 1991) aims to ensure the long-term viability of marine mammals living in coastal waters of the eastern Ionian Sea. IDP's research is primarily concentrated in three Natura 2000 areas: The Inner Ionian Sea Archipelago, the Paxoi and Antipaxoi Islands and surrounding waters, and the Gulf of Ambracia. These three study areas provide key habitat for different marine mammals and are remarkably diverse in terms of environmental features and threats posed by human activities. While in open Ionian waters the research is concentrated mostly on the endangered common dolphins (and the Mediterranean monk seal), in the semi-enclosed waters of the Gulf of Ambracia we work with a sub-population of bottlenose dolphins, recently classified as Critically Endangered in the IUCN Red List of Threatened Animals.

The CSR is a long-term project established in 1990. Its aim is to produce scientific knowledge to support the conservation of cetacean species living in Pelagos Sanctuary. The CSR Project focuses on population dynamics, spatial distribution, habitat preferences, ecology behaviour, bioacoustics and on the evaluation of long-term environmental changes and monitoring of anthropogenic pressures affecting the area. Eight are the CSR target species: fin whales, sperm whales, striped dolphins, long-finned pilot whales, Risso's dolphins, common bottlenose dolphins, Cuvier's beaked whale and common dolphin. The Recent IUCN assessment has classified most of the species living in the area as Endangered (EN), with the exception of the Cuvier's beaked whale (Vulnerable), and of the common bottlenose dolphin and striped dolphin (Least Concern).

Other:

Tethys Research Institute is contributing to the ACCOBAMS effort to identify Cetacean Critical Habitats through the support provided by the IUCN Marine Mammal Protected Areas Task Force. A series of Important Marine Mammal Areas (IMMAs) has been identified in the ACCOBAMS Region through dedicated workshops and these IMMAs may serve as a basis in the overlap between cetaceans' habitat and anthropogenic pressures.

Tethys is also collecting data through the deployment of satellite transmitters on fin whales to provide robust evidence of movements and habitat use in the North Western Mediterranean Sea, to support the ongoing effort to establish a Particularly Sensitive Sea Area (PSSA) by the International Maritime Organization (IMO) to mitigate ship strikes and other pressures related to maritime traffic.

A series of aerial surveys has also been conducted in the Hellenic Trench and Ionian Sea to provide density and abundance estimates to complement the ACCOBAMS Survey Initiative results.

TURKISH MARINE RESEARCH FOUNDATION (TUDAV)

Name of the Representative: Ayaka Amaha Öztürk



Capacity building activities:

NA

Public awareness activities:

TUDAV translated and published press release of ASI on online and and through social media platforms.

TUDAV made a short movie on cetacean boat surveys in the scope of ANEMONE Project in the Black Sea and published it on youtube channel of TUDAV.

TUDAV has organized two dolphin watching activities in the Istanbul Strait in spring 2022.

Research activities:

TUDAV continued the passive acoustic monitoring study in the Istanbul Strait with A-tag. We also monitor with F-Pods as a partner of the BlackCeTrends in the Black Sea with other colleagues in Bulgaria, Georgia, Romania and Ukraine.

TUDAV conducted the second line-transect survey on the western Black Sea coast of Turkey in 2021 in the scope of ANEMONE Project.

TUDAV continues monitoring of cetacean strandings on the Turkish coast. In winter-spring 2022, unusual cetacean strandings were observed on the eastern Turkish coast of the Black Sea. About 200 common dolphins strandings were recorded and some had net marks as the evidence of bycatch. TUDAV published press releases on this in March and April 2022.

TUDAV started regular sighting cruises in the northern half of the Istanbul Strait since February 2022 to assess the cetacean population status in the Strait and to further develop the photo ID study of bottlenose dolphins in the area.

Publications:

Tonay, A.M., Gül, B., Dede, A., Öztürk A.A. 2020. Cetaceans and marine litter in the Black Sea. In: (Aytan, Ü., Pogojeva, M., Simeonova, A. Eds.) Marine litter in the Black Sea. Turkish Marine Research Foundation (TUDAV) Publication No: 56, Istanbul, Turkey. 236-246pp.

Tonay, A. M., Uzun, B., Dede, A., Amaha Öztürk, A., Danyer, E., Aytemiz Danyer, I., ... & Bilgin, R. (2020). Population genetic structure of the short-beaked common dolphin from the Black Sea and the Turkish Straits System. Mitochondrial DNA Part A, 31(6), 257-264.

Tonay, A.M., Dede, A., Gül, B., Öztürk A.A. 2020. First record of a fin whale (*Balaenoptera physalus*) stranding on the northern Aegean Sea coast of Turkey. J. Black Sea/Mediterranean Environment 26(2): 223-230.

Dede, A., Tonay, A.M., Gönülal, O., Öztürk A.A. 2020. First sighting of false killer whales (*Pseudorca crassidens*) in the northern Aegean Sea. Journal of the Black Sea/Mediterranean Environment 26 (1): 106-111.

Tonay, A.M., Öztürk Ayaka, A., Salman, A., Dede, A., Danyer Aytemiz, I., Danyer, E., Öztürk, B. 2021. Stranding records of sperm whale (*Physeter macrocephalus*) on the Turkish coast in 2019-2020 with a note on the opportunistic sampling of stomach content. *J. Black Sea/Mediterranean Environment* 27(3): 281-293.

Dede, A., Özsandıkçı, U., Tonay, M.A., Aytemiz Danyer, I., Danyer, E., Öztürk, A. A. 2022. Abundance estimation of cetaceans in the Sea of Marmara using line-transect. In: Öztürk, B., Ergül, H.A., Yalçiner, A.C., Öztürk, H., Salihoğlu, B. (Eds) *Marmara Sea 2022 Symposium*. Istanbul, TUDAV Publ, 404-409pp. (in Turkish).

Paiu R. M. , Cañadas A., Dede A., Glazov D., Meshkova G., Öztürk A. A. , Popov D., Shpak O., Tonay M. A., Timofte C. Kopaliani, N., Panigada S., Gol'din, P. 2022. First comprehensive density and abundance estimates of cetaceans in the Black Sea through aerial surveys. 33rd Conference of the European Cetacean Society, Ashdod, pp.54

Kerametsidis, G., Glarou, M., Tiralongo, F., Akbora, H.D., Andrés, C., Bakiu, R., Beqiri, K., Carvalho, I., Cicek, B.A., Crocetta, F., Dede, A., Deidun, A., Friedman, M., Genov, T., Giovos, I., Kleitou, P., Maximiadi, M., Naasan Aga-Spyridopoulou, R., Neokleous, S., Roditi-Elasar, M., Scheinin, A., Tanduo, V., Tonay, A.M., Gonzalvo, J. 2022. Assessing human-wildlife interactions in the Anthropocene: a social media-based study on the Mediterranean monk seal, a flagship species for marine conservation. 33rd Conference of the European Cetacean Society, pp. 119-120.

Popov, D., Gol'din, P., Meshkova, G., Vishnyakova, K., Ivanchikova, J., Paiu, M., Timofte, C., Ozturk Amaha, A., Tonay, A.M., Panayotova, M., Duzgunes, E. 2022. Assessment of bycatch level for the Black Sea harbour porpoise in the light of new data on population abundance. 33rd Conference of the European Cetacean Society, pp. 72

Other:

TUDAV is involved in the preparation of IMMAs in the Black Sea and Turkish Straits System.

TUDAV has been working with MEDASSET, ACCOBAMS and other Turkish NGOs for the MAVA Bycatch Project.

UNIVERSITAT DE VALÈNCIA

Name of the Representative: Juan Antonio Raga



Capacity building activities:

- Reports of Cetacean Abundance, Distribution and main research done to Local and National Governments.
- Students training: Courses to all levels of education: Primary School, High School and to foreign students at University.

Public awareness activities: (max 250 words)

- Questionnaires to fishermen of the Comunidad Valenciana Fleet. 2020
- Talks in the Event "Día de los Pescadores". 6/11/2021. Awards ceremony for fishermen for their collaboration in marine conservation, and Dissemination of the different Conservation projects that are being carried out.
- Megafauna amenazada del Mediterráneo. 8/06/2021. Delfines, tortugas y tiburones. On the occasion of International Oceans Day, a team from the Cavanilles Institute of Biodiversity and Evolutionary Biology of the University of Valencia organized the online colloquium Threatened Megafauna of the Mediterranean. Dolphins, turtles and sharks. The purpose is to give visibility to three R+D+i projects that specialized researchers in Marine Biology are carrying out on these three zoological groups and their conservation problems.

Research activities:

Aerial Surveys:

Seasonal aerial surveys are conducted in central Spanish Mediterranean waters in 2021 in order to know:

- Cetacean and turtle distribution and abundance in the study area
- Changes in distribution and abundance of these species in the last 10 years
- Transects cover the area representatively. For this purpose, a high-wing aircraft is used, flying at an altitude of 750 ft and at a groundspeed of approximately 166 km/h (90 knots)

Strandings:

The University of Valencia coordinates the stranding network in Valencian Community. The objectives are:

- Strandings Register information of the stranded species, numbers and trends
- Collect and conserve biological samples: tissues, teeth, parasites, and stomach content
- Analyse parasitological content, develop genetic studies and studies of feeding habits
- Studies of health status of cetaceans from western Mediterranean: CeMV on Mediterranean dolphin populations
- Parasites: The University of Valencia collects micro and macro

Other:

- MEDACES Mediterranean Database of Cetacean Strandings. This database has been set-up to co-ordinate all national and regional efforts for riparian countries. This project was created under the Barcelona Convention extended to the ACCOBAMS area. It is currently supported by the Spanish Ministry of the Environment, ACCOBAMS and the UNEP-MAP-SPA/RAC.
- ESTUDIO PARA LA CONSERVACIÓN DE LOS CETÁCEOS Y TORTUGAS MARINAS DE LAS COSTAS VALENCIANAS. Conselleria d'Agricultura, Desenvolupament Rural, Emergència Climàtica i Transició Ecològica funding

- [EVALUACIÓN Y PRINCIPALES AMENAZAS DE LAS POBLACIONES DE CETÁCEOS EN EL SUR DEL CORREDOR DE MIGRACIÓN DE CETÁCEOS DEL MEDITERRÁNEO \(COMICET-SUR\)](#). This project investigates, during 2020-2021, the distribution and abundance of cetacean populations in the southern zone of the Cetacean Migration Corridor and evaluate the main anthropogenic threats, such as maritime traffic and interaction with fisheries, in order to provide baseline information to establish future measures of management and dynamic management. With the support of the Spanish Ministry for Ecological Transition and the Demographic Challenge, through the Biodiversity Foundation. <https://comicetsur.blogs.uv.es/>